

ARCHIVES OF SURGERY.

JANUARY, 1891.

A VISIT TO EDINBURGH.

HAVING been honoured by an invitation to give the opening address at the Royal Medical Society of Edinburgh (on Oct. 24th), I availed myself of the opportunity to renew acquaintance with the renowned museums of the northern metropolis, and to pay one or two hasty visits to the Infirmary. Through the kindness of numerous friends, who spared no trouble in bringing under my notice subjects of interest, I was enabled to see much in a short time, and it may possibly prove of interest to my readers if I venture briefly to record what has chiefly impressed my memory.

* The chief museums of Edinburgh are, first, that of the University, now located in a new building of splendid size and proportions, and recently rearranged under the guidance of Sir William Turner. This museum includes all branches of anatomy and pathology, comparative as well as human. Next we have that of the College of Surgeons, a very large collection of historic repute, and well kept up under the zealous conservancy of Dr. Cathcart. In addition to these public collections, most of the hospital surgeons have their own half-private ones in the Infirmary building, which are used for the illustration of their lectures. That of Mr. Chiene, the Professor of Surgery, in particular is full of most valuable specimens, and is kept in beautiful order. It may be thought that these personal collections must compete injuriously with

that of the University, and so no doubt they do to some extent, just as our hospital museums in London compete with the Hunterian collection.

Mr. Annandale possesses in his private collection a series, of unique value, of specimens of complicated fractures into the elbow joint. These accidents are of course common, and we often have to examine elbows in the living subject more or less crippled by old injuries. It is often exceedingly difficult to determine what the precise character of the displacement or fracture has been. If two surgeons examine the same case they scarcely ever agree as to details, and often differ widely. Almost always they are examples of fracture and dislocation together. Although so frequent in practice, however, it is very seldom that we get opportunities for dissecting such joints, and few of our museums boast more than one or two specimens. Mr. Annandale has a dozen, and most interesting and valuable they are. They have been obtained by excisions performed during life, Mr. Annandale believing that the movable joint obtained after an excision is an improvement on the stiffened one previously present. Most surgeons have reserved excision for cases in which the malposition is very great—such, for instance, as those in which the elbow cannot be bent—and have feared the weakening of the arm which but too often follows an excision. Of this risk Mr. Annandale speaks very lightly. He assured me that his results had been most satisfactory. In all cases he had removed the elbow with the parts *in situ*, and tolerably freely as regards length; so that his specimens, now dried with the ligaments remaining, permit of an accurate appreciation of the exact condition. The collection will, I trust, sometime be described in detail. I had only a few minutes' inspection of it, and can say little more than that it appeared to contain examples of almost all possible combinations of displacement of the ends of the three bones concerned. In only one did the specimen show separation of the epiphysis; in all the others the bones were those of adults. I was particularly interested in noting that in one or more the external condyle had been broken off and carried backwards with the head of the radius, thus permitting of a

dislocation of the latter while not exposing its cup. I have recognized this condition several times in the living subject.

Mr. Annandale showed me also many casts illustrating congenital deformities of the hands and feet. In this subject, as is well known, he has taken especial interest, and some of his family histories are of great value as proving the hereditary tendency to deformities of special kinds. He told me that in one instance he operated for the same defect more than twenty times on members of the same family.

The taste for collecting historic relics appears, I think, to be stronger in our Edinburgh *confrères* than it is with us. The boiler in which Hunter is believed to have boiled the bones of the giant O'Brian has recently found its way from Kensington, not to our Hunterian Museum, where the skeleton is, but to Professor Chiene's private collection. It is highly prized. Mr. Chiene possesses also one of Hunter's drawing-room chairs and various other interesting relics of a man of whom Scotland and England are equally proud. Sir W. Turner still uses every day in his anatomical theatre the slate table upon which Monro primus used to place his subjects for demonstration. It is a massive table, well fitted with movable joints, &c., and although chipped and showing results of wear, is in good condition. It is certainly a relic much to be valued. Some of the objects prized are, however, of rather ghastly interest. The skeleton of Burke is still shown with pride to all strangers. I am not unaware that in Lincoln's Inn Fields we have the skull of Eugene Aram, and may own that I should be glad if it, as well as Burke's skeleton, were relegated to private closets. I could find no scientific interest in the latter, excepting that it is clear that he was not a man of coarse build. His bones are, indeed, exceptionally well formed and light. He had been, I believe, a gentleman's servant. A distinguished Edinburgh surgeon is said to possess a pocket-book made of his skin, and the authorities of the University Museum are credited with the ambition of, at some future time (distant it is to be hoped), securing this valuable relic as a bequest to their collection. May it perish first! There is in the Bristol Infirmary Museum a book bound in the skin—the "*cutis vera*"—of a

poor country lout who threw a stone at his sweetheart when she was walking with some one else, and had the misfortune to cause osteitis and death. He was, as a matter of course sixty years ago, hung. It scarcely followed as a matter of course even in those days, I hope, that his skeleton and skin should have been preserved as curiosities in a scientific collection. The skull of the poor girl, which is kept side by side with his own, is of real pathological interest, but from his no ingenuity whatever can extract a lesson. Such objects as the skeletons of murderers, &c., if they must be kept, should be under the curator's lock and key, and not exposed to public gaze. They gratify only morbid curiosity, and tend to distract attention from things better worthy of notice. I cannot but think that they tend to degrade the collections in which they are found.

The above remarks, of course, do not apply to the collection of the skulls or bones of remarkable individuals, whether criminal or not, where they can be made use of for scientific observation as to development, form, capacity, &c. It is, however, I suspect, but very seldom that such purposes can be served, and even when they can I am not sure that the relics which illustrate them had not better be kept in privacy. This leads me to speak of a valuable and extensive collection of casts of heads made by a society which called itself by the name of Phrenological, and under the direction, I believe, of the late Dr. Andrew Coombe. This collection has been placed in the custody of Sir William Turner, and now occupies a room in the University Museum. It contains casts of the heads of a great number of distinguished persons, and has evidently been collected with great expense and trouble. If all the casts are authentic, it is of great value for the study of physiognomy in reference to character, and deserves to be better known than it is. I had not time to examine it in any detail.

Amongst the most recent of the specimens added to his collection, Professor Chiene showed me a coccyx and part of the sacrum which had been excised in order to facilitate removal of the lower part of the rectum for cancer. He spoke most strongly of the advantages secured by removing the bone, and also of the general result of his cases. He

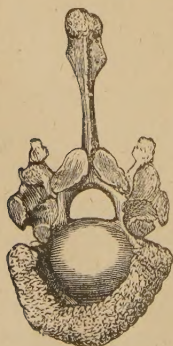
had had difficulty, he said, once from hæmorrhage from the middle sacral, and in future purposed to tie it before division. He urged close adherence to the mode of procedure advised by the originator, and said that he had reason to regret having tried to improve upon it.

I visited the Museum of the University first in company with Sir William Turner, who kindly devoted several hours to showing me its treasures, and on a second occasion with Dr. A. Thomson, the sub-curator. Amongst its specimens which have become historic is that of a dog, all of whose bones have been affected by encrusting periostitis. It is certainly most valuable and important. Dr. Hughes Bennett used to employ it as an illustration of the injurious effects of mercury, for the dog belonged to an artist, and it was said that it had been in the habit of licking paints, in the studio, which contained mercury. That the conditions exhibited by the bones had anything to do with mercurial influence is very doubtful. The bones, especially the long ones, show thick layers of spongy growth beneath the periosteum, enlarging the shaft to two or three times its normal size. There is neither caries nor necrosis. A leg bone shown in sections proves that the encrusting layer enclosed the original bone, of course adhering to it, but not causing other changes in it. Thus it does not resemble what is met with in osteitis deformans, or in acromegaly. It might seem that this encrusting or ensheathing form of multiple periostitis is more common in the lower animals than in man. At any rate, all the best examples of it are in the bones of animals or birds. Our College of Surgeons Museum contains several specimens in birds (barn-door fowls, I think), and in the Brighton Museum is the thigh bone of a turkey similarly ensheathed. Sir W. Turner drew my attention to a most remarkable example of it affecting one of the tail vertebræ of a whale. No information was extant as to the state of the other bones of the skeleton. The specimen had been rescued by Sir William from a bone-crusher's establishment, and no others like it could be found. The body of the vertebra was thickly covered in all parts by a growth of new bone, which was of almost uniform thickness in all parts and nearly doubled

its bulk. The new bone adhered inseparably, and presented a roughened surface. The enclosed body appeared to be quite healthy. To suggest that it was a form of rheumatic osteitis from prolonged exposure to damp and cold was easy, but did not help our doctrinal pathology much. Another very curious specimen, also obtained by Sir William Turner himself, consists in the horns of a deer encrusted all over with bony outgrowth, much like that on the whale's vertebra. It gave the horns the appearance of a mass of branching coral. The deposit, as in other cases, was of uniform thickness, and very rough on the surface. The bones of the skull from which the horns grew were not affected in any way. Professor Turner told me that he had obtained the animal's head from a friend, and that it was, possibly, that of an animal which had retained its horns owing to castration. The horns when obtained were encased in a very thick integument. The conditions affected the two horns equally, and were clearly not due to injury, nor to any local cause. I cannot but think that the birds' skeletons referred to, that of the dog, the whale's vertebra, and the deer's horns, must all be considered together as examples of a form of osteitis which we do not find at all closely paralleled in the human subject. That any of them have anything to do with mercurial influence becomes improbable in the highest degree when we take them together.*

Whilst on the subject of encrusting periostitis, I ought to

* Just before going to press I have recollected and succeeded in finding a woodcut, which I here reproduce. It is one which I had executed many years ago from a specimen in the Museum of the Royal Veterinary College. It shows exactly the same state as regards encrustation of the body of the vertebra, which is present in Sir William Turner's specimen above described. It will be seen that the whole of the front surface of the body and many parts of the processes are covered with a thick encrustation of new bone. This encrustation did not extend from one vertebra to the other, but left them quite separate. None of the joints appear to have been in any way affected. The bone is certainly from one of the lower animals, and, I think, from a horse; but I am speaking rather at random, having neither the



specimen nor any reference before me.

mention the calvaria of a negro which presented conditions the like of which I have never before seen. It was covered all over its surface by a thick deposit of new bone, very hard, but pitted and rough on its surface, almost honeycombed. The deposit doubled the thickness of the bone. There was no disease of the under table, and the conditions in the upper were wholly unlike those of syphilis or new growth. The new bone was spread in even thickness over the whole calvaria, with the exception of the sides, where the bone is protected by the temporal muscles. Here there was no change. This abrupt symmetrical limitation suggested that the condition had been caused by some disease of the scalp, or possibly had been a sequel of scalping. The negro had lived in the United States, and might possibly have been in the hands of the Indians. The base of the skull was not preserved, so that the limitation of the changes, back and front, could not be ascertained. It will be of interest to learn whether American observers are familiar with the conditions described. They reminded me a little of those shown in a specimen in the Musée Dupuytren in Paris, in which they are attributed to favus of the scalp.

The Museum is rich in urinary calculi both from India and Scotland, and also contains many specimens of concretions from the intestines of the lower animals, with a few from those of man. Amongst the latter I observed one which had a small plum-stone for its nucleus. It was exactly like one shown me by Professor Virchow a few months ago in Berlin, and mentioned in ARCHIVES, ii., 116. My attention was also drawn to a series of "womb-stones," the calcified remains of fibrous tumours. Two of these were of very large size. One had been obtained from a grave which had been opened long after burial, and after the soft parts of the body had decomposed. It was found in the pelvic cavity, and was presented to the Museum as a specimen of a very large vesical calculus. About its true nature there could of course be no doubt; but after all, I do not think that it was very much larger than a true bladder calculus of enormous size, which was subsequently shown me by Professor Chiene.

Dr. Cathcart has for some time been collecting models and

specimens illustrating the association of certain forms of diffuse osteitis of the long bones with elephantiasis and similar conditions. I am enabled by the accompanying wood-cut, which has been for many years in my possession, and which was originally published in the *British Medical Journal*, to show the condition referred to.

Specimens in all respects similar are preserved in every pathological museum. Unfortunately, however, it is seldom that there is any clinical history connected with them. The



bones are there, but no one can tell from whence they came or with what conditions they were associated during life. It is to the elucidation of this question, and more especially to its full demonstration by models, &c., that Dr. Cathcart has given his attention. He has in two or more cases been able to place a model of the patient's leg side by side with the specimen obtained either after amputation or death. This was exactly what was wanted, and his models are most instructive.

The bones to which I refer usually show the effects of general superficial osteitis, being roughly encrusted with new deposit over their whole surfaces. The interosseous membrane is frequently converted, to a greater or less extent, into bone. In the majority of specimens only the shafts of the bones are involved, but in the worst the morbid changes extend to the articulations.

These specimens show the conditions produced by long-standing solid œdema of the leg, attended by general inflammatory hypertrophy of tissues. They are obtained in England from cases usually of chronic ulceration, persisting for many years and attended by permanent enlargement of the limb. In the worst of these cases, conditions to which all would give the name of elephantiasis are produced; and the minor ones ought to be recognized as earlier stages of the same malady. In the wood-cut given above it will be seen

that on the front of the lower third of the tibia there is an oval-margined surface, which is limited by a raised edge. This in all probability marks the site of an old ulcer. I can give no history of the specimen here figured. It is one in the London Hospital Museum which has been preserved, as so many unfortunately are, without any clinical record. I have several times dissected such limbs and proved the association of the two conditions. Dr. Paul Reclus, in a paper in the *Progrès Médicale*, has recently drawn attention to them.

Amongst the collection of skeletons there are several of great interest in illustration of the various conditions met with in rickety dwarfs. One of these especially claimed my attention on account of its close similarity in many features to the skeleton preserved in the Norwich Museum, which, through the kindness of Mr. Cadge and Mr. Cross, I was enabled to show at the Pathological Society two years ago, and which is known as that of the Norwich dwarf. It will be remembered by those who were present at that meeting that I was inclined to doubt the applicability of the name rickets to that specimen, since it nowhere showed any evidence of bending of the shafts of the bones; and there were very peculiar conditions as regards thickness of bone and exaggeration of the ridges for muscular attachments which are not usually seen in rickets. Mr. Shattock and Mr. R. W. Parker expressed opinions somewhat different, holding that the skeleton did really belong to the category of intra-uterine rickets. Perhaps the real question between us was as to how closely the latter malady is allied to the post-natal disease. I am bound to say that the Edinburgh specimen gives some evidence in support of Messrs. Shattock and Parker's contention, for in addition to dwarfing, and changes in the joint ends of the bones very similar to those in the Norwich dwarf,* it shows curvature of the shafts exactly like those of post-natal rickets. There can be no doubt that its possessor suffered from rickets after birth. As regards the peculiar bevelling off of the sternal extremities of the clavicles which is present in the Norwich specimen, that remains so far as my experience has yet gone, and so far as

* Excellent photographs of the Norwich dwarf have been preserved in the College of Surgeons Museum (London).

I have been able to avail myself of the experience of better osteologists, a quite unique feature.

Amongst the most valuable of the additions which have recently been made to the University Museum is one presented by Dr. Alexis Thomson, the present curator, showing unilateral exostoses from certain bones of the face and skull with also general hyperostosis. I have myself long possessed a skull, to which I have made frequent allusions in print, which I have believed to be a unique example of this condition. Dr. Thompson's specimen is almost the counterpart of my own, and makes the second case; and I have just found in Heuse's Atlas an illustration of a third, which in some features, though by no means in full development, resembles them.

One of the specimens which interested me most in the Museum of the Royal College of Surgeons, was a demonstration of the mode in which melanosis spreads in the lymphatic trunks near to its seat of origin. Dr. Cathcart showed me a beautifully dissected specimen of the lymphatic trunks from the leg of a patient who had a primary melanotic growth on the foot. Scattered all over these subcutaneous trunks, like minute beads threaded on a wire, with irregular intervals of separation, were the little black nodules of secondary growth. They had of course nothing to do with lymphatic glands, but were developed in lymphatic trunks of the smallest size, and these, too, immediately beneath the skin. The preparation showed a whole network of them. I had long been aware that there are certain cases of melanosis in which the growth, during the earlier periods of its secondary reproduction, is, in a remarkable manner, restricted to the limb in which the disease originated. This law of temporary local restriction applies of course not solely to melanosis; it is seen also in certain forms of scirrhus, especially of the breast, in which many nodules are often developed in the skin at a little distance from each other. In epithelial cancer, however, we seldom or never see instances of it, and it is rare in most forms of sarcoma. In most of these latter varieties of new growth the infecting germs usually pass unimpeded through the

PLATE XXVIII.

MULTIPLE MELANOTIC GROWTHS IN SKIN, CONFINED TO
THE LIMB IN WHICH THE PRIMARY GROWTH HAD
OCCURRED.

THIS portrait is copied from a drawing given to me by Professor Gairdner, of Glasgow. I am not acquainted with the particulars of the case, for I believe that Dr. Gairdner had never himself seen the patient. It shows a whole crop of little melanotic tubers, like currants or small grapes, in the skin and subcutaneous cellular tissue, of one lower extremity, of an old woman. The primary disease had been, I believe, on the third toe. The portrait is of great interest, as illustrating the tendency in some forms of melanosis to infect in the first instance the lymphatic trunks of the parts adjoining to the primary disease. Thus the first indications of infective spreading are local. To this tendency I have adverted in the text, page 202.

The portrait is almost the exact representation of the leg of another woman, also referred to in the text.

The reader may also with interest look at some of Hebra's illustrations of Melanoid Sarcoma.



lymphatic channels, and are arrested only when they reach the next adjacent glands. Melanosis affords us by far the best examples of what I refer to; and since its growths are black and very conspicuous they easily attract attention. An example of this, which received a good deal of attention from the London profession three or four years ago, occurred in a woman living in Norton Folgate. She had a primary melanotic growth on one foot, I think the right, and the whole of the right leg and part of the thigh became covered with little black nodules from the size of a currant to that of a grape. She was not in any way under my own care, but I was indebted to her medical attendant for an invitation to go and see her, of which I gladly availed myself. Although at first restricted to the lower extremity on which the primary growth occurred, the disease soon after became generalized, and coal-black nodules appeared on the skin of various parts. I believe that she subsequently had hæmoptysis, and no doubt she is long ago dead.* I am fortunate in being able to produce a graphic pictorial illustration of the condition referred to. It is one which also has Scotch associations, for it is copied from a drawing which was very kindly given to me by my friend Professor Gairdner, of Glasgow, when on a visit to the museum there some years ago. It shows the right lower extremity of an old woman covered from the foot upwards with melanotic growths. The primary growth had been on the foot. I am not aware of the sequel of the case; but no doubt it was, as usual, rapid infection of the viscera and of distant parts of the skin, failure of strength, and death. In cases of melanosis beginning in the eyeball, I have more than once had to do second operations on account of recurrence in the cellular tissue of the orbit, and have found not a single mass, but a multitude of little black nodules like small shot scattered amongst the cellular tissue and fat. No doubt in these cases, as in Dr. Cathcart's specimen, had a careful dissection been possible, it might have been demonstrated that the growths had originated in the cavities of lymphatic channels.

* This remarkable case may possibly have been published, but if so I have not come across it.

It is by no means all forms of melanotic sarcoma which manifest this very remarkable tendency to reproduction in adjacent lymphatic trunks. The cases are indeed very exceptional. In a large majority the first secondary manifestation of the disease is in the lymphatic glands, to the entire exemption of the lymphatic trunks. In some the glands themselves escape, and the first proofs of the migration of cell elements occur in internal viscera. Speaking generally and with, I am aware, many exceptions, I think that it is in proportion to the homogenous structure, and utter blackness, of the first growth that the tendency to lymphatic implication becomes marked. At any rate I have never myself seen any case of reproduction of melanotic nodules along lymphatic trunks excepting in cases in which the new material was of a homogeneous structure and black colour. The cases in which melanotic sarcoma, as is usually the case, is in part pigmented and in part not so, are usually attended with large gland growths and exemption of the trunks. This I think may at any rate be laid down as invariably the fact, that the gland growths are never black. I never saw a large gland mass which was wholly or even very extensively pigmented. Probably, however, all these little differences as regards the clinical career of the disease depend upon the exact structure in which the first growth takes its origin. The stamp of peculiarity is derived from the land of birth.

My visits to the wards of the Royal Infirmary were sufficient to enable me to renew former impressions as to the excellence of the methods of clinical instruction there pursued. I saw also many examples of admirable surgery. For the most part, however, my opportunities were too brief to permit of my venturing to record anything as to individual cases. Two or three I will, however, briefly mention.

In Dr. Duncan's wards I was shown a woman past middle age, who was under treatment for general enlargement of lymphatic glands believed to be due to tertiary syphilis. It was an example of the simulation of Hodgkin's disease by syphilis.* The diagnosis of syphilis rested on the presence

* The reader may in connection with this subject refer with interest to a case of Dr. McAll Anderson's, mentioned in the ARCHIVES, i., 72.

of some ulcers on one shoulder which had healed quickly under specifics. There was, I believe, no history to be obtained. The patient was of earthy pallor and thin. Her cervical and axillary glands were on both sides much enlarged, without inflammation. They were not agglutinated, and, being very firm, were easily moved on each other. I was told that they had already, under treatment by specifics, much diminished in size.

Another case of interest was that of a man who had been admitted the day before with a large healing scalp laceration and traumatic tetanus. He had also the complication of facial paralysis on the right side, which in the most remarkable manner interfered with the development of the risus sardonius. His face showed the characteristic grin on one side only. The facial paralysis was probably due to a fissure fracture of the petrous bone, for he was deaf on the same side, and the history was that it had been present from the first. The accident had been a fall, when drunk ("not so very," he interposed), from a wall. He had cut his head on a stone, and the believers in the bacillary origin of tetanus may fairly claim the case as one in which, very probably, earth found its way into the laceration. The symptoms of tetanus had developed about the tenth day, but in spite of this rather long interval they were severe, and the prognosis appeared to be very grave. I was told that tetanus is rare in Edinburgh, and that in the case last preceding there was also a possibility of earth-infection.

Dr. Duncan had also under care a patient whose case is the subject of much interest to his physiological colleagues, since it is believed that all the bile escapes externally from a fistula. The patient is a woman in whom, under conditions of extreme difficulty, owing to adhesions, the gall bladder was opened and explored for calculus. A stone was found blocking the common duct, but it proved impossible to dislodge it. At a second exploration the stone could not be felt, but all the bile has ever since escaped from the fistula. The woman has done well, and her case is—half in earnest and half in joke—asserted to prove that the bile does not serve any useful purpose in the intestine.

(To be continued.)

DOCTRINAL PATHOLOGY.

So large a portion of the pages of the "ARCHIVES" is occupied by case-narratives that I feel almost sure that a section devoted especially to the discussion of pathological doctrines will be acceptable to my readers. In undertaking this, it is wished that it may be fully understood that the design is to discuss rather than to enunciate. I shall endeavour to express as clearly as I can the points under debate, and whilst never seeking to conceal my own opinions, shall be far from desiring that they should be accepted as conclusions. One of the advantages afforded by periodical publication is the facility given for returning to topics already to some extent dealt with, and of re-stating opinions in the light of additional facts or of further thought. Of this I propose to avail myself freely, and not being one of those who hold that it is a duty to maintain in their integrity all opinions that have once found expression, I shall take liberty to express freely the creed of the day, purposing to modify, or even to abandon, in the future whatever may be found no longer tenable.

Is it necessary to take for granted the presence of some form of bacillary or other parasite whenever contagion occurs? The tendency of recent research has certainly been in this direction. We have found the gonococcus for gonorrhœa, and to diphtheria, glanders, erysipelas, anthrax, and many others, a special bacillus has been assigned which is in all probability the agent of contagion. But let us ask, does the fact of contagion always imply parasitism? May not products of inflammation, other than newly-developed and independent organisms, be capable of transferring the

malady from place to place in the patient, or even from person to person? We may probably infer that when diseases keep close to the original type-form, when that which is produced by contagion is exactly like that which existed in the person from whom the contagion was derived, that some parasite giving specificity is present. We may take specificity in result as proof of specificity in cause. It seems to me highly probable, however, that the products of inflammations which have originated from other causes than contagion, easily and at an early stage become contagious.

So far as we at present know the facts, Koch's fluid may probably be taken as a detector of the tubercle-bacillus or of its effects in the past. If there are scrofulous inflammations which are not bacillary, it has probably no influence on them. In it we shall, it may be believed, have a test as to the presence or absence of the parasite. As such it will be invaluable, and may be expected to help to the elucidation of many problems. For my own part I shall be by no means surprised if it should demonstrate that after all tuberculosis is only a sort of accidental addition to scrofulosis. To put the suggestion in other words, it may lead us to attach far greater importance to the previous diathesis and state of health of the patient, and far less to the accidental implantation and growth of the parasite. Every housewife knows that however important it may be to rub away all mould, it is, if the house be damp, hopeless to attempt to get rid of it by such means. It may be just as irrational to think that tuberculosis can be cured by killing the extant crop of the bacillus.

The close similarity of the bacillus of leprosy to that of tubercle has claimed the attention of all observers. Most hold, I believe, that although the differences are slight, they are quite definite; but some, well entitled to form opinions, have thought that our knowledge as yet is not sufficiently explicit to justify this conclusion. That leprosy and the tubercular malady are both of them attended by the presence in large quantities of bacilli, and that these stand in

the relation of cause to some of the phenomena produced, almost all will acknowledge. It may be worth while at the present stage in the investigation of these matters to ask attention to certain parallels and to some conspicuous differences between the two diseases.

Amongst the most noteworthy differences between tubercular maladies and leprosy is the clinical fact that while the former acknowledge very definitely predisposing causes, we know nothing of such in reference to leprosy. Any one, at any age, and without the slightest regard to temperament, inheritance, or state of health, may, on going to reside in a leper-district, become the subject of leprosy. Nor is there in many cases, perhaps in most, any introductory period of ill health.

I am aware that a stage of febrile prodromata has been described by local observers. There is, however, the fallacy that these observations were usually made in unhealthy and malarious districts, and upon patients who might easily be the subjects of other disease. I can bear clear testimony, from the observation of many cases, that no failure of health whatever was noticed before the manifestations of leprosy began. It may also be mentioned as a feature of difference between leprosy and tuberculosis that all cases of the former are chronic. We have nothing in the least comparable with acute tuberculosis. By far the chief fact as to difference between the two is the strict endemic limitations of the one as contrasted with the universal diffusion of the other. If we were to judge from clinical evidence only, we should believe that leprosy must depend upon an absolutely specific cause, and tuberculosis upon a variety of influences which act prejudicially upon the general health.

Whatever may be our creed as to the possibility of inflammation-products becoming contagious without the presence of any parasite, there can be no question as to the converse proposition. Many diseases are attended by specific bacilli and yet do not manifest contagious powers. Even tubercle itself appears to be but very weakly contagious, leprosy not at all so; and concerning tetanus, no one has ever

proved that it is communicated from person to person. We admit our leprosy patients into the open ward, allow them at home to associate with their friends, and although the disease lasts a lifetime and is often attended by free secretion, no accidental contagion ever takes place. Surgeons have, with the utmost zeal, prosecuted investigations into the pathological anatomy of leprosy in thousands of cases, but no post-mortem abrasion, no pricked finger has ever yet resulted in the communication of the disease. As regards tetanus, the facts are yet more free from dispute. It is very important to keep these facts in mind, for one result of Hansen's discovery of the lepra-bacillus has been a wide-spread retrogression to the old belief in the contagious nature of the malady. We cannot too definitely rid our minds of the supposition that because a disease is attended by a specific parasite, it is therefore contagious.

Those who in reference to tubercular maladies attribute most importance to the bacillus, yet admit that predisposing influences take a large share. They by no means ignore the parts taken by hereditary predisposition, narrow chests, feeble tissue-organization, imperfect feeding, exposure to damp, and the like. Seeing then that peculiar states of tissue-health are fully acknowledged quite independently of the specific poisoning, may we not assume that they in themselves are efficient to the production of certain forms of local disease? It may be that a large group of maladies, formerly classed as scrofulous, are the direct results of chronic inflammation in those who are fit subjects for tuberculosis, but have not as yet received the bacillus. Scrofulous ophthalmia and chronic ulcers of the cornea, in feeble persons with thick lips and patchy colouring of cheeks, may stand as examples of these diseases. No one holds that these ulcers are really tuberculous, but they certainly occur to those whose state is such as to render them more prone than others to tuberculous affections. These are examples only of a large group.

organisms and damaged parts are more prone to be victimised by certain infective agents than those which are strong and sound, we must carefully guard against pushing it beyond the facts. It applies only to some parasitic poisons, and not by any means to all. Syphilis, small-pox, scarlet fever, and the like, wait not in the least for predisposition, but attack all alike. It has even been supposed that the exanthematic fevers are more severe in the strong than the feeble, and it would not be difficult to sustain a similar argument as regards syphilis.

The remarkable facts which already seem to have been proved in reference to the influence of Koch's fluid on "Lupus" will, I hope, have the effect of drawing the attention of pathologists in more detail to the study of the diseases which pass under that name. Lupus is, it may be suggested, not the name for a single malady, but rather for a family. It is by no means a simple equivalent for tuberculosis of the skin. The bacillus, although often found in the true apple-jelly-like growth of common lupus, is more usually not to be demonstrated, and other forms of tuberculosis of the skin have been described which do not resemble "lupus." In the mouth, on the gums, cheeks, palate, &c., true tubercular ulcers differ both in appearance and in clinical course from lupus of the same parts. There is a whole series of affections certainly cognate with common lupus in which, as yet, no bacillus has ever been discovered. In this matter clinical observers must be minute and by their detailed investigations must endeavour to assist the bacteriologists.*

The discovery of a bacillus as the supposed cause of Tetanus certainly took clinical observers by surprise. No one expected it. The disease is neither infective nor contagious, nor does it ever prevail epidemically. It is in temperate countries rare, and its cases occur, one here and one there, over the length and breadth of the land. It may end fatally

* I have myself already done what I could to elucidate this subject. My lectures on Lupus given before the Harveian Society will be found in the pages of the *British Medical Journal* for 1888. I purpose shortly, if engagements will permit, to reprint them with additions.

in a few hours or it may be protracted over months. The injuries from which it usually results are most various in their kinds, and most of them such as do not appear to carry with them any risk of contagion. Nothing in its clinical career looks like an infective malady due to a specific virus. Everything rather suggests a travelling neuritis originating in injury and tending to implicate the spinal centres. Yet we are told that it is certainly due to bacillary infection. The supposition is, I believe, that a certain specific bacillus, very widely prevalent and nowise hurtful unless introduced into a wound, every now and then gains access to one and evolves the phenomena of tetanus. We may, I suppose, if we like, still keep the theory of infecting neuritis as one part of the chain, but this neuritis is held to be set going by infective material and to be throughout associated with it. One little clinical fact certainly gives some support to this creed. I allude to the statement that the bacillus of tetanus is often found in earth, and to the fact that contused and earth-contaminated wounds seem to be especially prone to be followed by this fearful malady. After all, however, this goes for but very little, for very many tetanus-producing injuries are of a nature in which such contamination is impossible. Especially I might mention burns, which it might be supposed were the least likely of all injuries to facilitate the implantation of a local poison. Many years ago I endeavoured to confute by statistics the prevailing opinion that the male sex is, than the female, more prone to tetanus. My argument was that women were less liable to the injuries which evoked it, and I produced statistics proving that burns, the special form of accident to which women are more liable than men, produced a larger number of tetanus cases in females than in males.

I have already asked attention to the facts which seem to make it probable that catarrhal inflammations, taking their origin from exposure to cold or damp, and evoked through the reflex functions of the nervous system, may under certain circumstances become infectious and prevail as epidemics (see ARCHIVES i., 307). With the catarrhal affections, according to my present light, go the diphtheritic ones. I

cannot acknowledge any specific distinction between membranous croup and membranous diphtheria any more than I can between sporadic catarrhs and catarrhs which prevail as epidemics. In each case the results are obtained by breeding up a specific virus which in the beginning found its advent in an attack of inflammation which was not due to contagion. I purposely avoid saying that it originated in an inflammation, for the latter may have afforded only the occasion for its development and not have been in an absolute sense its cause.

It comes, perhaps, to this, that the tissue disturbance which we term inflammation always and even in its earliest stages, enfeebles the structures affected, and renders them an easy prey to parasitic germs which are always and almost everywhere present. We have then to keep before our minds two things—the antecedent tissue-damage, and the exposure to contagion. By successful attention to either, the development of a specific form of inflammation may be prevented. This was indeed the germ-theory of Lister, from which such splendid results have accrued. In a vague manner this theory had floated before the minds of our forefathers. The glory of our great cotemporary is that he gave it emphasis and precision, and above all that he applied it to practice. It is certainly true, and to find out its exact laws and limits is the task of the future.

CASE OF SIMULATED VACCINATION-SYPHILIS.

I HAVE had another case under observation of gangrene after vaccination with calf-lymph, and with certain symptoms simulating syphilis. The case is indeed the counterpart of Case I., ARCHIVES i., 110. I have preserved a portrait showing the condition of the arm and the location of some of the nodes on the skull. Over leaf I have given a tabular statement of the facts on the "space-for-time method," and I need not therefore trouble the reader with any other case-narrative. The facts in which the two cases resemble each other are that the infant was perfectly healthy up to the time of vaccination, that the lymph used was not taken from the human subject, that the skin around the vaccination-sores passed into gangrene with at the same time a large gland swelling in the armpit. To these must be added that periosteal swellings of considerable size formed on the skull bones, and that suspicious sores occurred on the skin. Further I may add that both patients appeared to be much benefited by the use of mercury, and that in particular the periosteal swellings rapidly subsided. It is obvious that these two cases give mutual support to the belief that no accidental contamination of the calf-lymph by syphilitic secretions occurred. This was a suggestion which, although there was not the slightest evidence in its support, it was difficult to wholly exclude in an isolated case. It is, however, improbable in the highest degree that such an accident should occur in two cases, and in each should be followed by precisely similar results. There remains then the question: Were these infants the subjects of a latent inherited taint which vaccination roused into activity? In neither case was there the slightest evidence that either parent had suffered from

syphilis, and in neither had the infant prior to vaccination shown any symptoms. In one case the child was a first-born, but in the other there was a healthy elder child. The final supposition is that it is possible for vaccination independently of any syphilis, whether implanted or hereditary, to evoke symptoms which have hitherto been regarded as peculiar to the latter malady, and which are apparently greatly benefited by specific treatment. On this point we must hold our minds open to the reception of further evidence. For the present I have only to add that two other cases which I recorded at the same time presented an almost identical chain of phenomena, with, however, the difference that they were both vaccinated from human lymph. I have also been made acquainted, though not in full detail, with several other more or less similar cases, and in none has there been any real proof of syphilis. One thing seems to me quite certain, that if these cases have anything whatever to do with syphilis it is with an inherited taint, and not with the introduction of the virus by vaccination. The phenomena, as well as the history, are wholly different from those of the latter class.

CASE IV.—DR. L——'S PATIENT (seen by myself in consultation).

A healthy first-born child, vaccinated at three months with calf-lymph. Slow development of vesicles. Inflammation of the arm in the third week. Gangrene of vaccinated area, with large mass of glands in armpit. Three nodes in skull. Pustule on nose. Recovery under specifics.

AGE.	DATE.	DETAILS.
	1890. July	Born of healthy parents, and apparently quite sound.
1 month	August	In fair health.
2 months	Sept.	In fair health.
3 months	Oct. ,, 15	In fair health. Vaccinated with Renner's calf-lymph at the same time as several others who did quite well. On the eighth day only one place seemed to have taken, but later on all three looked satisfactory.
4 months	Nov. 4	Arm inflamed: large black scabs with pus at their edges. 11th, Seen by Mr. Hutchinson. A large slough comprised all the vaccination sores, and passed deeply almost to the bone. Pustule on ala nasi, and three nodes on the skull. 22nd, Slough separating and nodes subsiding under specifics. Sketch taken.
5 months	Dec.	Doing well.

TREATMENT OF LUPUS BY KOCH'S FLUID.

I HAVE had as yet only two cases under my own care in which we have tried the treatment by injection of Koch's fluid, and in both the disease presented some peculiarities. In both the details of the treatment were undertaken by Dr. Heron, to whose kindness, care, and caution the patients, as well as myself, are very much indebted.

My first case was that of a little boy in whom the lupus was too extensive for any other method of cure. It was of the vulgaris form, but most unusually multiple and wide-spread in its manifestations. This patient was shown in connection with my Harveian lectures three years ago, and again more recently at the Dermatological Society. Two portraits showing his condition at different dates are in the collection of the College of Surgeons. The case was one, therefore, in which if a cure had resulted, the conditions could have been definitely contrasted with the previous state. Unfortunately, however, I cannot say that any great benefit has accrued. On account of the great extent of the disease, Dr. Heron commenced with very weak injections, but their strength was afterwards increased, and they were eight times repeated, with good reaction on all occasions excepting the last but two. The only effect on the lupus patches that we could observe has been that some of them have suppurated more freely, and that others have looked rather more red and shed scales more abundantly than they did before. Many of them, however, have not displayed any changes whatever. There is no reason for believing that the boy is either tuberculous or scrofulous in any other sense than that he is the subject of lupus.

My second case is that of a lady who has for two or

three years been the subject of lupus erythematosus. The patches and discs are numerous, and almost cover her face, scalp, and forehead. There are some also on the upper part of her chest. She is a lady of 55 years of age, in good health at present, but who in early life was considered to be consumptive. It is not improbable that she has the remains of tubercular disease in one lung, but she has no active symptoms, and has not recently lost flesh. Concerning her case I may report very briefly that the injections five times repeated, and on the later occasions in full strength, have produced full reactions, and once or twice made her feel very ill, but they have had no very obvious effect on the patches of lupus. The latter have sometimes looked redder than before, and we have tried to think that they shrivelled somewhat, but certainly there have been no definite changes. It will be seen that this case is an example of the erythematous form of lupus, one in which I believe as yet the presence of the bacillus has never been proved. We had, therefore, no right to expect that the Koch treatment would cure it. The trial was, however, well worth making, for as I many years ago attempted to prove, lupus erythematosus occurs much more constantly in association with a definitely tuberculous history than does lupus vulgaris. This fact is illustrated by the present case, as the lady has been suspected of phthisis. The reactions which occurred may have been in connection with some remains of tubercle in the lungs, and not in any reference to the lupus. This was, I believe, Dr. Heron's view.

Should it seem worth while in the future I shall recur to these cases, and record them in more detail.

Postscript.—Since the above was written, the patches of erythema on the cheeks in the second case have to a large extent disappeared. Those on the chest remain. The improvement occurred suddenly ten days after we had abandoned the injections under the belief that they were not affecting the disease. It is too early to venture any opinion as to whether the improvement will be permanent, or whether it is in any way connected with the treatment.

NOTES ON CANCER AND CANCEROUS PROCESSES.

(Continued from page 144.)

On Senile Moles and Senile Freckles, and on their relation to Cancerous Processes.

IN the case of Mr. K——, an elderly Scotchman, we had an excellent illustration of the development of papillary moles in senile periods of life. So far as he was aware, he had not had any moles in childhood, and their development, as about to be described, had commenced only about ten years before I saw him—that is about the age of 58. They began, he believed, on his back, but others appeared not much later on his face and right leg. The condition of his back when he consulted me is well shown in a portrait which was taken at the time, and is now in the possession of the College of Surgeons. Between his shoulders, and from the nape of his neck to his loins, were scattered a number of low papillary growths, most of them more or less pigmented. They were all abruptly circumscribed, and most of them smooth on the surface. None were in the least warty, although many showed a slight tendency to markings on the surface like those on a turkey's wattle. Some showed very little pigment indeed, whilst others were nearly black. The largest was not as big as a sixpence. Amongst them was one which a little differed from the rest in being more elevated, not in the least papillary, and in growing from its surface a single stout hair. This hair was probably of importance as proving congenital modification of structure.

On the right cheek, extending downwards in front of the ear and upwards on to the temple, was a large area, irregu-

larly margined, of a low and slightly pigmented papillary growth. The surface was level and quite sound, there being not the slightest tendency to inflammation or to warty developments. Its margin, which was quite abrupt, was like the rest of its surface, and not in the least like that of rodent ulcer. On his temple, a little in front of the patch just described, there was a scar, which he said had been left after destruction by caustic of a similar growth ten years ago. On his cheek on the same side there were four or five little pigmented freckles, which had recently appeared and were increasing in size. These showed no papillary hypertrophy whatever. Near to them and about the middle of his cheek was a little growth characteristic of rodent ulcer, with the usual rolled edge. On his right leg Mr. K—— had a coal-black patch about the size of a sixpence (see portrait), which was extending gradually at its edge, and which it was certainly quite impossible to distinguish from melanosis. A little lower than this was another, but slightly less marked, patch of similar character. It will be observed that all the principal patches which have been mentioned were on the right half of the body. There were, however, a few senile freckles on the left side of the face, and the moles on the back were in equal numbers on both sides of the spine.

Mr. K—— was quite confident that his moles and freckles were increasing in number and also in size. Their rate of increase was, however, very slow, and they gave him no trouble whatever. I destroyed the little patch of rodent on his cheek by a very liberal application of nitric acid, and used the same remedy for the papillary growth on the side of his temple.

In addition to the pigmented moles and freckles which have been described, Mr. K—— had a few florid nævi as large as number 6 shots scattered here and there; these were, like the others, supposed to be of recent development.

This case well illustrates what I have said as to occasional multiplicity of the pathological lesions which may occur in the senile skin. Whether any of them, and if so which, will pass on into processes which are positively cancerous, is as yet uncertain. That they are all dangerous I have no doubt.

The precise form of cancer will depend upon the precise tissue and region attacked. If the black mole on the leg, it will be melanotic sarcoma; if one of those on the face, it may be either the superficial or deep variety of epithelial cancer. All the places affected should be carefully watched, and upon the least indications of growth tendency being manifested, liberal cauterizations should be at once employed.

On Moles in their relation to Melanosis.

I have repeatedly seen pigmented growths much smaller than that which was present on Mr. K——'s leg originate glandular developments of melanotic sarcoma. I well remember a case in the London Hospital of which an elderly man was the subject, in whom a very large gland mass was present in the groin, and who was himself quite unaware of the presence of a small black mole on the foot which had originated it. A precisely similar, but yet more marked, example of this came under my notice some years ago in connexion with the examinations at the College of Surgeons. In this instance an old man between sixty and seventy had a glandular mass in Scarpa's triangle as big as a fist. It had been growing for a few months only, and feeling quite sure that it could not be primary, I made a diligent search on his foot, with the result of discovering a little black mole not so big as a split pea at the root of one of his toes. The presence of this mole had not previously been suspected. It had even been denied after an examination. No doubt it had become melanotic, but it is to be clearly stated that it showed no tendency to growth. It is a very remarkable fact with regard to moles which take on melanosis, and which may originate gland masses of very rapid growth and produce widely disseminated disease, that they themselves do not grow at all, and not infrequently they remain so small that their possessor never recognizes their existence.

It will be seen that in the above statements much depends upon our definition of the term "mole." It may be suggested that what I have so called were really not moles, but recent primary developments of melanotic sarcoma. It is quite true that the patients referred to were not themselves aware of the

existence of any congenital moles where the little black spots were found. Accepting, as I think we ought to, the broad definition of a mole as any local congenital defect of development of the skin attended by hypertrophy, we must next admit that many are so minute at the time of birth that they are wholly overlooked. Some, perhaps the majority, never grow, but many do at some period of their subject's life take on processes of independent growth. It is, as I have elsewhere suggested, probable that senility favours the growth of independent fragments of tissue of this kind, and that old people find out moles, often many of them, of whose existence they had not previously been aware. It is with these considerations in mind that I prefer to think the little black masses above referred to moles, rather than melanosis growing in previously healthy tissues.

On the peculiarities of the Skin in Old Age.

In describing the peculiarities of the skin in old age, we may notice first, a general and universal tendency to atrophic thinning, and to the wasting and loss of its appendages. Every one knows the appearances of the senile hand, the thin transparent skin which allows all the veins, tendons, &c., to be seen through. The subcutaneous fat has disappeared. The glands in the skin have shrivelled, the hairs have fallen out, and the whole thickness of the integument is little more than that of a piece of stout paper. These conditions, which perhaps reach their acme on the back of the hand, are to be observed in lesser degree on all parts of the surface, and are often very noticeable on the face. With this atrophy as regards thickness there is little or no tendency to shrink, and hence the formation of the wrinkles of age which in some cases and in some positions amount to large loose folds. As a direct consequence of this general atrophy, certain changes as regards function, and with them altered tendencies as regards disease, are to be noted. The senile atrophic skin does not perspire easily, and seldom becomes greasy from sebaceous secretion. It presents a dry, somewhat polished, clean and often crinkly surface. Old people show a much diminished liability to pustular eruptions, and to all diseases

which have their seat in the hair follicles or the adjacent sebaceous glands. If acne occurs it will be of the erythematous or rosaceous variety, with little tendency to pustules. Acne vulgaris and the formation of comedones are almost exclusively confined to young or middle-aged persons. The increased translucency of the skin in the aged, however, often makes old changes in sebaceous glands more visible than they had formerly been, and this is more noticeable on the face.

The atrophy of the glands generally, which is a part of the change which the senile skin undergoes, is of course well shown in certain special gland organs. The breast in women atrophies or becomes a mass of fat; the glandulæ Tysoni in the male prepuce disappears; and in women, again, Bartolini's glands atrophy to such an extent that they cannot be found. So also with the ceruminous glands of the ear. Simultaneously with this general arrest there also often goes a temporary depravation of function. Although the comedones so often seen in young persons as parts of the acne process are never observed in old persons, yet we do sometimes see peculiar forms of sebaceous disease. Accumulations of a very hard sebum may occur which distends the follicle into a cyst, but does not as in youth cause any surrounding inflammation.

The proclivities to disease in the senile skin are very marked, and perhaps few old persons can be found who do not display one or other form of them. Apart from the almost universal dilatation of blood-vessels in the face forming the "seaweed patches," we witness a sort of general emancipation from what may be called central control in the part of all structures. In the young when this escape from control occurs, the tendency is to inflammation, in the aged it is to modifications of growth. All these aberrations of growth tend more or less towards a malignant type. The simultaneous development of cancer of the skin in several different regions is by no means very uncommon in aged persons. Fortunately the cancerous process is usually very slow, and there is often a prolonged stage during which it is impossible to say whether the condition should be named chronic inflammation or one of malignant action. Any one

who will carefully inspect the skin of the face, neck, and bust of a few elderly persons, is almost certain to find illustrations of what I describe. He will find various modifications of the hypertrophied gland, of the freckle, of the papillary mole, and of the wart, and some to which it may be difficult to assign any name.

On Excision of Lymphatic Glands in cases of Cancer of the Tongue.

If the lymphatic glands have enlarged in cases of epithelial cancer of the tongue, it is as a rule very unhopeful practice to remove them. The operation ought, however, I am convinced, to be attempted in all suitable cases; and ought of course to be done in the freest possible manner. I am acquainted with three patients who are now living after secondary operations for the removal of lymphatic glands consequent upon epithelial cancer of the tongue. The best of these is a well-known gentleman in the city, a patient of Sir Joseph Lister's. Some months after the removal of the tongue for cancer, Sir Joseph excised a mass of glands which had enlarged in the floor of the mouth. I was not present at the operation, but believe that it was a most liberal one. The triumphant result has been that the patient is still living and well six or eight years later.

Two similar cases have occurred in my own practice, but in neither is the record quite so long.

In one, General M——, I had watched a case of extensive sclerosis of the tongue during many years. In spite of entire abstinence from smoking (which had been the original cause), a patch on the dorsum at length assumed suspicious characters, and I immediately performed excision. My microscopic friends, who examined the specimen afterwards, assured me that there was no proof of the disease being cancerous. I might thus fairly have hoped that I had operated in the pre-cancerous stage. Some months later, however, the patient returned with a single enlarged gland under his sterno-mastoid. It was isolated, and I advised its removal. This was done, and it was found to be crammed with cancerous elements. It is now four years since the

operation, and General M—— has had no sign of return of the disease in either the tongue or the glands.

In my second case I removed the tongue at a rather late stage of cancer, my patient being an artist and comparatively young. He was only thirty-eight, and the disease had progressed very rapidly. It was an acute and most dangerous form of cancer. At the time that I excised the tongue I removed also some glands under the jaw. Six months later, however, he returned to me with enlarged glands in the neck, between the angle of the jaw and the sterno-mastoid. With much misgiving as to the result I performed another free excision. I have just received from him a grateful Christmas greeting, with the assurance that he is still (three years after last operation) quite well.

ON MORPHŒA, DIFFUSE SCLERODERMIA, AND ALLIED DISEASES.

(Continued from page 40.)

No. VIII.—*Morphœa occurring in large patches on both sides of the body, and arranged almost symmetrically—Some peculiarities in the location of the patches which it was difficult to explain—Possible influence of irritation from the clothes—Note as to state five years later.*

ONE of the most interesting examples of the disease that I have ever seen occurred in the person of a gentleman named L—, aged 66, who was brought to me by Dr. George Hastings in October, 1884. The changes in his skin were located much as if they had been due to the irritation of a vest; that is, they occupied his trunk, upper arms, and thighs, extending but slightly to forearms and legs and entirely avoiding the face, neck, forearms, and feet. The scrotum, penis, and pubic region were also absolutely untouched. It was exceedingly difficult, not to say impossible, to explain the location of the disease by reference to nerve-distribution; yet it was not diffuse or universal, but in many parts occurred in abruptly margined patches. The most conspicuous patches were brawny, considerably thickened, and of a dull, yellow-white colour. The tint was more yellow than usual, and the lilac border was not conspicuous. The arrangement was most exactly symmetrical. I had no opportunity for dictating notes whilst the patient was undressed, and the following details, being from memory, may possibly not be quite

accurate. The diseased state commenced above on the root of the neck, the raised edge of the patch being very conspicuous on the sides and in front, but less so behind. The brawny hide-bound condition became somewhat less on the surface of the chest, and was not present over the epigastrium and mammary regions. A little below the epigastrium, however, there began a broad conspicuous belt which covered the whole of the abdomen downwards as far as the pubes, where it ended by an abrupt transverse line. This belt involved both sides of the abdomen and the back, and exactly corresponded with the area covered by a flannel belt which he was in the habit of wearing. The skin involved was distinctly thickened, hard and leather-like. It was quite impossible to pinch it up in the least. Passing down the groins on each side was a strongly-marked oblique strip of yellow-white induration. These strips joined the abdominal belt a little in front of the anterior-superior spine, leaving a triangular area, including the pubes, penis and scrotum, the skin of which was quite supple. Down the fronts and sides of the thighs long, broad patches extended, which tailed off a little below the knees. This tailing off of patches was noticed also on the forearms. On the inner side of each upper arm there was a very conspicuous white patch, nearly as big as the palm of the hand, placed not lengthwise on the limb, but transversely. It is not easy to assign the cause of this peculiar location. Both on the back, the arms, and the thighs, near to the patches which were well-characterized and yellowish-white in tint, there were many other smaller ones which were only of a dusky red.

The conditions just described had developed quite recently. The first patch had been noticed about three months before I saw the patient, on his left arm, and not long afterwards it appeared on the other also. The patches on the abdomen and thighs did not attract attention till a month later. It was believed that they had at first been more definitely cedematous and more swollen than they were when I saw them. No cause was assignable. Mr. L—— was an architect, of active habits and usually enjoying good health. He was, however, not feeling well at the time that the skin

disease commenced, but there was nothing definite. The state of his skin had caused him considerable annoyance from its hide-bound condition.

This patient was good enough in February, 1889 (five years after the above notes), to answer my inquiry as to his progress. He reported that he was in fairly good health for seventy years of age, and that his skin had somewhat improved in appearance. He had discarded all special treatment.

No. IX.—*Case of Morphœa in a boy, in whom the diseased tracts were arranged almost symmetrically—Proof of bilateral nerve-distribution—The lower extremities almost disabled.*

A very interesting example of this disease was sent to me by Mr. Cant, of Lincoln, together with a full account of the case. It was peculiar in that, at first sight, the affected parts appeared to be arranged with symmetry, although the disease was of the morphœa type and not diffused sclerodermia. On careful inspection, however, some deviations from symmetry were observed, and it became quite evident that there was nothing opposed to the hypothesis of nerve-distribution on each side. It was clearly an example of bi-lateral nerve-location. Thus, in the first place, a large patch on the front of the abdomen, just above the navel, was noticed, which extended equally on both sides. But on looking at it carefully, it was seen to consist of two patches which almost, but not quite, met in the middle line. These patches were white and lardaceous, and were of a long oval shape, curving downward and forward just like herpes zoster. There were some other smaller spots near to them on the sides of the trunk. It would be tedious to attempt to describe all the patches in detail. Both lower extremities were very severely affected (being much in the condition shown in the girl Oser, of one of whose legs a cast has been preserved). In both the back of the thigh as far down as the popliteal space was quite exempt, whilst its front and outer sides showed long broad streaks of brawny induration. Below the knee, both in back and front, almost the whole of the skin was involved, the

brawny hardness being most conspicuous in front of the ankle. The right limb suffered more severely than the left. The skin of the right knee was so stiff and hard that he could not bend it much. The lowest part of both feet and all the digits had escaped with the exception of the middle toe of the left foot. This toe was drawn up, and its integument everywhere glossy and hard. The soles of the feet were on both sides exempt, and he could bend the ankle joints sufficiently with a little difficulty to stand on tiptoe. The skin of the whole of his back was quite healthy, as was also that of the lower part of the abdomen and of the whole of his chest, with the exception of ill-marked brownish patches symmetrically placed along the borders of the armpits. The upper extremities had also escaped with the exception of a long oval white patch on the back of the right forearm.

Some of the patches were not very conspicuous, especially those on the upper part of the trunk, and his mother had discovered that the best way of finding them was to feel for them, their rigidity being more easily detected by the finger than any peculiarities observed by the eye. On the legs the patches were of course very conspicuous indeed. Our patient was a healthy-looking boy, ten years old, in whom no cause for the malady could be assigned. His mother had noticed the patches on his abdomen first, but those on the legs were seen soon after. At first they were not easily seen, and she did not think them of any consequence. She did not consult any medical man until six months ago, a year after she had first observed them. She thought that the patches on the left lower extremity came later than those on the right, and that they had all increased considerably in size. It would not be safe, however, to place much reliance upon her observations in these respects, and it is probable that all the patches made their appearance nearly simultaneously, and had since been gradually passing through the usual stages, assuming by degrees features which made them more and more conspicuous. Of late the condition of his legs had rendered running and even walking somewhat difficult, and it was impossible for him to kneel. I was assured, however, that he had recently taken part in a game at cricket, but with

the admission that the exercise made the legs very irritable. Mr. Cant had for some time been treating him with arsenic and a weak iodine ointment, by which some improvement had been effected.

It will be seen that the parts exempt were the back, neck, head, and face, the digits excepting the middle toe of left foot, and the upper extremities excepting one patch on right forearm.

I saw Master M—— for a second time on July 29, 1887. He had then an inflamed ulceration on one knee. The limb was so much disabled that I advised amputation. Subsequently an ulcer formed on the ankle, and when I saw him for a third time in February, 1889, he was quite crippled by the disease, and as he suffered a good deal of pain from the ulcers I again urged removal of the limb. He was in excellent health, and was growing well in his trunk and upper extremities, but the lower ones were becoming dwarfed.

No. X.—*Morphœa in a young woman — Many patches in bilateral but not symmetrical arrangement.*

The patient whose case is the subject of the following narrative was sent to me by my friend, Dr. Port, in 1879. I copy the notes as taken at the time. Jane H——, aged 23. She had suffered from indigestion and palpitation for some years. About six months ago she began to suffer from neuralgia in left side of face. It lasted very severely for two months, and is still scarcely gone. Four months ago she began to experience a peculiar tingling in the right arm, and after a while she discovered that there were patches. About the same time her right leg swelled, and became much discoloured as if bruised. Subsequently she had similar tingling feelings in the cheeks and in the other arm, and other patches made their appearance. She thinks that there was an interval of two months between the first development on the right arm and the appearance of the patches on the cheeks. She has had a good deal of aching and smarting pain in the left leg and thigh.

She now has the following patches:—

Cheeks.—On each cheek the patch is in front of ear, beginning about on level of tragus, and extending downwards and forwards. The most marked ivory condition is near to the ear, but less distinct spots are to be found coming forward nearly to middle of cheek. On the right cheek it does not begin so near to the ear, and extends further forwards than on left. The larger patches are very dense and ivory like.

Right Arm.—It begins on the inner edge of triceps behind the upper arm a little above its middle, and passes downwards as a long irregular streak just in front of inner condyle, and along the border of ulna to wrist. Quite independently of this streak, her middle finger is swollen without any brawny condition, and the knuckle of the forefinger is rather painful. The right arm shows no changes, but she complains that the skin tingles sometimes, the tingling moving upwards in streaks.

On the left shoulder are two oval patches, dense and ivory-like, beginning close to spine, and extending outwards and downwards on the spine of the scapula.

On the right thigh there is a single small, rather indefinite patch, about the middle and exactly in front. Then over the head of fibula a large, broad, well-characterized brawny brown streak begins which covers the whole of the outer border of the leg and ankle, and extends to the root of little toe. This patch shows the changes in a more advanced state than any other, the subcutaneous cellular tissue being rigid, and the skin adherent to the deeper parts. This leg has given her so much trouble that she has been obliged to leave her place.

March 2, 1880.—I saw this patient again at this date, a year after the preceding notes were taken. The improvement was very remarkable. The position of all the patches could still in a good light be identified, the skin being white and polished. In some, however, it was quite difficult to find them, so little thickening or discoloration remained. The patch on the foot was the largest and most definite. Here the skin was thin and tight from atrophy. It could

not be pinched up, but the epidermis could be made to crinkle somewhat by pressure. There was little evidence at any of the patches of implication of the subcutaneous cellular tissue. The long streak along the inner side of the right forearm offered some exception to this, as here there was a condition of unevenness easily detected by the finger, and even by the eye, and caused apparently by atrophy of the cellular tissue.

The symmetrical patches on the sides of the cheeks could be discovered by the smoothness and hardness of the skin, but were not in the least conspicuous. The patient was florid and in good health. She was taken to the Pathological Society at its meeting on March 2, 1880, in order to demonstrate the fact of the disappearance of "Ivory patches." It is interesting to note that in this case the integument between the patches remained quite healthy, and that although she had patches on the cheeks, there was no reason to believe that her fifth nerves were affected. In each instance, the patch on the cheek occupied exactly that part of skin which is supplied by the facial branch of the great auricular from the cervical plexus.

No. XI.—*Single-patch Morphœa in a healthy man*
—*Partial disappearance.*

A man named James K——, aged 41, was sent to me by Mr. Herbert Miller, of Stoke Newington, on July 16, 1887. He had a single oval patch of morphœa on the right side of the trunk, just between the navel and the border of the ribs; it was very hard from tallow-like infiltration of skin, and was surrounded as usual by a narrow lilac rim. He had discovered it by accident in passing his hand over the part, which had not caused him the slightest inconvenience. (This patient attended at one of the college examinations for the Fellowship, and was seen by many of my colleagues.)

In February, 1889, Mr. Miller was kind enough to ask this patient to call on me a second time for inspection. Eighteen months had elapsed since I had seen him. The patch had, I found, to a large extent disappeared. It had thinned away,

and a slight depression, with some pigmentation around it, was almost all that remained. There had not been the slightest extension at the borders. It was now very evident that the thick homogeneous patch had been made up by the coalescence of many small spots. The latter had again come into view as absorption had progressed.

No. XII. — *Raynaud's symptoms in a married woman of middle age, followed by diffuse sclerodermia of both hands and face—Gangrene of one finger—Some improvement subsequently—Record of condition five years later.*

The patient to whom the following memoranda refer was sent to me by Dr. Hughlings Jackson in December, 1884. I am indebted to Dr. Clement Dukes, of Rugby, for the notes which enable me to record the state of things five years later. The case was one in which the phenomena of Raynaud's malady had preceded those of diffuse sclerodermia (or morphœa). It will be seen that the face as well as the hands suffered. Mrs. S—, aged 41 (in December, 1884), had been married many years, and was the mother of five children. She gave me the following particulars as to her present illness.

Three years ago her hands used to "go purple." "If I lifted them up to comb my hair, all the blood used to go out of them, and they looked as if they were dead. Last winter they began to swell very much, and then they set. They did not set till last winter, and there was no pain till then. They began, however, to get a little stiff two years ago." She suffers very much from the cold.

Her legs and feet are a little œdematous, the skin pale but not hard. Her toes are apt to die; one of them is now as white as a candle.

The hard state of skin is limited to the exposed parts (the face and upper extremities). It shades off gradually from the face to neck, and is scarcely perceptible in the lower part of the latter. All her fingers are as stiff as wood. She was never strong; never had chilblains badly; always "nervous

and easily put about." Her youngest child is two years old. She used to take cod liver oil. She had small-pox ten years ago after one of her confinements.

The following are some particulars kindly supplied to me, subsequently, by Dr. Clement Dukes, of Rugby, under whose care the patient was. It will be seen that they record the gangrene of one finger, but some general improvement as regards the hide-bound condition.

"Mrs. S——, æt. 45. April 30, 1889. *Legs*: Swelled, patches of psoriasis on the knee only in front, and one place on the left knee behind. *Toes*: Swelled and blue as far as metatarsus. She keeps them from going quite dead by soaking them in *very hot* water every night. *Skin on face and neck* still a little hard, but not swelled. It has much improved. There are very marked *lines* all round mouth, radiating from the lips. *Right arm*: The wooden hardness formerly extended nearly to the elbow; now there is some hardness at the wrist, but none above. Comparatively the forearm is now quite soft. *Right hand*: The hand itself is now comparatively soft; there is some hardness remaining. *Thumb* less hard than any of the fingers. First finger very hard, flexed at right angle. Second finger very hard, flexed into palm, at angle 45°. Third finger very hard, flexed at right angle. Fourth finger: three years ago the hardness was so great that it obstructed the circulation to such an extent that the finger died and dropped off at the end of the first phalanx. *Left arm*: Much as right. *Thumb* softer than fingers. First finger comparatively mobile. Second, third, and fourth are flexed at right angle, and of comparatively little use. Soaks daily in very hot water, from which she finds great relief, and they do not die now. She has wonderfully improved in all respects, and in general health, and in the gradual disappearance of the hardness, since 1884. She takes continuously citrate of quinine and iron, and cod liver oil. If she omits these remedies she says she goes back directly. Change of air also improves her greatly."

No. XIII.—*A group of lardaceous Morphœa spots arranged like Zoster on one side of the abdomen.*

Dr. Barlow brought me a gentleman named P——, about 32 years of age, and, excepting dyspepsia, in good health. For the last two months he had had a belt of erythema with slight induration on the left side of his abdomen. In the middle of this belt a number of white lardaceous spots had slowly developed. The belt was in form and in curve exactly like herpes zoster. It covered the side and front of abdomen, ending just below the umbilicus. It passed the middle line a little, but not more than we often witness in zoster.

The lardaceous spots, as big as sixpences, very numerous and ill-defined, were most characteristic, and in the middle of the group there was slight brawny induration. Above and below the group the skin was congested, red, and very slightly swollen. The margins of the erythema were not very abrupt, but still easily noticed. Scarcely any irritation had attended the development of the disease.

No. XIV.—*Case in which after an interval of ten years a second patch of Morphœa was developed—Details as to the condition left after resolution of the original patch.*

The following note refers to almost the only case in which I have ever witnessed what may be called a second attack of morphœa. In the first instance a single well-marked ivory patch occurred on the scapular region of a young girl. In the course of years it thinned away. Ten years later, however, another smaller patch developed not far from the first, just as we sometimes see a second outbreak of herpes zoster.

Miss J—— comes to me to-day (Feb. 12, 1878). She is in fair health. The upper patch is an oval about an inch and a half long, and begins a little to right of the spine of seventh cervical. It is simply a little red over the whole surface; no lardaceous deposit can be detected. It looks much like a stain left by a blister. On touching it, however, a definite degree of induration is at once detected. This is greatest in the middle, and shades off gradually towards the edges. Between this patch and the older one is a belt of healthy skin about an inch and a half in width. The lower patch is three or four inches long by two and a half wide, and is oval. The skin is in the middle much thinned, and can be pinched up in a fold not a third the thickness of that of the opposite side. This loss of thickness is chiefly due to atrophy of the subcutaneous fat. The edge of the scapula beneath is much too easily felt. The middle of the patch shows broad white seams, smooth and glistening. These look much like the ivory patch, but consist of scars and are not thickened.

A broad belt round the patch is of dusky tint, from congestion then and there.

No. XV.—*Case of slightly marked Morphœa affecting one half of the face in a woman, with dilatation of the pupil and loss of accommodation.*

Through the kindness of Mr. Nettleship I had the opportunity of seeing an example of fifth-nerve morphœa in which the local changes were singularly slight. You could just notice in a good light that the left half of the forehead was slightly shrunken, and that on the left malar bone, left side of nose, and left half of upper lip, were white ivory-like ill-defined patches. These changes were definite when once seen, but might easily have been overlooked. The patient herself had, in fact, overlooked them. She was extremely lean, and the other side of her face was most unusually thin, and this no doubt helped to reduce the contrast, probably also it restricted the extent of change. By the finger it was scarcely possible to appreciate any hardness, and at no point was it impossible to pinch up the skin a little. It seemed probable from the woman's statement that the changes had been present nearly a year. She had consulted Mr. Nettleship on account of inability to see well with the eye of the affected side. Its pupil was dilated and motionless, and she had paralysis of accommodation. With a + 10" she could read well. The pupil measured about No. 12 in contrast with No. 4 in the other eye. She had been aware for nearly six months that her sight had been failing and the pupil enlarging. She had no deafness, and there was no paralysis of other orbital muscles. On the hypothesis that morphœa changes depend upon some disease of the vaso-motor inducing contraction of blood-vessels, the dilatation of the pupil might be considered to be readily explained, since spasm of arteries and dilated pupil are usually associated. It is not, however, so easy to account for the loss of accommodation, since that function depends chiefly on the third nerve. Indeed it is more probable, noting this combination, that the mydriasis is

paralytic than spasmodic—due, that is, to paralysis of the circular fibres supplied by the third nerve. The complication is an exceedingly important one, and may perhaps help to the solution of the enigma as to the true nature of morphœa.

No. XVI.—*Note on the exemption of Infants from Morphœa.*

Infants do not ever suffer from the lardaceous patch morphœa. It may be that in them the development of the nervous system is not sufficiently advanced to permit of the production of these phenomena, and that in them the causes which would in adults produce such results are attended by other changes. The period of liability to herpes and to morphœa as regards age is almost exactly the same. Both begin to occur about the age of five, and are tolerably frequent and often severe between that age and the period of puberty. Both diminish in frequency as age advances, but either of them may occur even in the old, and when they do so are usually attended by features of peculiarity.

(*To be concluded.*)

CASES ILLUSTRATING DISEASES OF THE NAILS.

THE tenth of my clinical lectures on "Certain Rare Diseases of the Skin," published in 1879, is devoted to affections of the *Nails*. During the twelve years which have since elapsed, many cases of much interest have come under my notice, and the subject has developed in various directions. I now purpose to record some of the more important of my recent facts. I shall reserve for my next number some general comments on the group, and an attempt at its classification in subdivisions in relation with special causes and combinations of causes.

No. I.—*Chancre under a finger-nail, followed, in the secondary stage, by inflammation of all the finger-nails.*

A very peculiar condition of general inflammation of the finger-nails was presented in the case of Mr. P——. This gentleman was under my treatment for primary and secondary syphilis, and had been taking small and, I suppose, inadequate doses of mercury for more than a month when his nails became affected. He still had the remains of an eruption. Suddenly all his finger-nails became softened over their lunulæ, and the nail beds, as seen through their substance, were of a dusky red. The whiteness of the lunulæ was quite lost. The nails were somewhat tender at the affected parts, but there was no pus-secretion, nor any material congestion of the adjacent part of the finger. His toe-nails were not affected. These statements apply to April 12, 1890, and it was then

sixteen weeks since the disease had been contracted. I had seen him for the first time on March 9th.

Now there was an important fact in Mr. P——'s history which might possibly have much to say to this peculiar development of onychitis. His original chancre had been, not on the genitals, but on a finger. He was a South American, and according to his own account he examined a prostitute in New York in order to know if he should be safe, and finding evidence of disease told her what she had and declined to go any further. But meanwhile, in spite of his disgusting precautions, he had been infected. Three weeks after the occurrence the nail of his right middle finger inflamed, and soon became very sore and painful indeed. Neither he nor his surgeon, however, suspected anything until an eruption appeared, although meanwhile there had been an enlarged gland above the elbow and another in the armpit. When the eruption showed itself the diagnosis was made and mercury was at once administered.

Mr. P—— consulted me on his arrival from New York. (March 9th). His finger was then healed, but the nail was much broken and deformed. The enlarged glands could still be found, and there were peeling patches in the palms and some blotches on the arms. It was then twelve weeks since the exposure. There had not been any sore throat. I prescribed mercury in somewhat larger doses than he had had it. He was a very self-willed man, and I doubt much whether he took it regularly. His palmar psoriasis disappeared, but some pustular eruptions on his head and face persisted up to the time (one month later) when he came to me with his nails inflamed. In addition to the symptoms mentioned, there were some little lymphatic knots in the subcutaneous cellular tissue of various parts.

During March and April Mr. P—— remained under my treatment. In the beginning of May he had acute orchitis in connection with a gonorrhœa. For this I prescribed tartar emetic.

May 26th.—He is taking the potassio-tartrate of antimony in eighth of grain doses three times a day, as well as his mercury (gr. ii.), and is not in the least sick.

Although the epididymis is still much swollen, and the vas as hard and as large as a quill, he has no tenderness or pain, and walks about in comfort. He suffers much giddiness in rising from bed, but he attributes this to his old ague, as he had it in the tropics formerly. His rash is gone. The nails are better. One of them has become loosened under its free edge, and appears likely to fall.

June 18th.—His nails are almost well, and he is better in all respects, but some fresh spots have appeared on the sides of the chest. They are livid. The epididymis is much thickened, the vas constituting a convoluted hard tube as thick as a pen-holder. It is not painful. He is now again leaving England.

Comments.—In connection with this case, which is a good example of syphilitic onychitis when general, I wish to ask attention to the mode in which the disease began. It was by congestion of the nail-root as demonstrated by dusky redness of the lunula. The destruction or exfoliation of the nail was secondary to damage caused by inflammation of its root. The same mode of commencement is observed in some affections of the nails which are not syphilitic.

Affections of the nails in the early secondary stage of acquired syphilis are not very common. It may be a question whether the circumstance that the chancre affected a nail had any influence in causing a preference for these structures. I have, however, seen many cases of chancre of the nail (midwifery chancres) which were not followed by general onychitis, and conversely I have seen several of general onychitis from syphilis, in which the original chancre had been on the more usual part. I am inclined, therefore, to regard the occurrence in this instance as merely a coincidence. It is one, however, worthy of being kept in mind.

No. II.—*Inflammation and Exfoliation of all the finger-nails in the secondary stage of Syphilis.*

Mr. D——, æt. forty-eight, a widower eleven years, came to me on Sept. 16, 1889, for a threatened attack of gout.

His history was that he had had syphilis two years before, for which he was six months under mercury. His earliest secondary symptom was, he told me, inflammation of the nails. All his nails fell off. They have since grown well, and when he came under my notice they were quite smooth and good. Subsequently to the nails becoming bad, he had a rash and inflamed tongue.

This case appears to have been a clear example of falling of the nails in the early stage of syphilis. It is to be noted that the detachment was, as in the preceding case, attended by inflammation. Thus the process does not appear to be precisely analogous to the falling of the hair which we often witness in syphilis, and which is unattended by any form of inflammation.

No. III. — *Shedding of the nails in Infantile Syphilis.*

In a portrait published in the Atlas of the New Sydenham Society, I have given several illustrations of disease of the nails in connection with inherited syphilis. They differ a good deal in character in different cases, and these varieties are usually in relation with the age at which they occur. When affected in early infancy the nails are not unfrequently shed.

I am at present attending the first-born child of a father who married too soon after his syphilis. It had in the first instance slight snuffles, then painful swellings on its arm-bones at various places, and a little later an eruption. Under treatment all these symptoms rapidly subsided, and the child, now five months old, is thriving. It appears likely, however, that it will lose all its finger-nails. They were from the beginning "pinched" and somewhat congested, and now a process of loosening, which begins from near the root, is in progress.*

* See also "Transactions of the Pathological Society," vol. xiii. p. 260. I have in that paper asked attention to the peculiar appearance of having been pinched laterally, which is often a most characteristic feature.

No. IV.—*Little black streaks in the substance of the finger-nails—Liability to them extending over ten years in a middle-aged man.*

The following notes describe a condition which I do not remember to have seen often. It would have been wholly unobserved had not the patient himself, an intelligent surgeon, noticed it.

Dr. E——, æt. 55, has been for ten years liable to the appearance of little black linear spots, or rather streaks, in the substance of his nails. They come at various parts but never over the lunula, usually in the anterior third. They are all alike quite black, but he thinks them of hæmorrhagic origin. They travel with the nail to its edge, and he then cuts them away.

He associates with them a certain tenderness and irritability of the finger-ends and hands which passes up the arms. It is transitory. He does not associate them with gout or indigestion. He is seldom without them. Sometimes three or four come at the same time. The thumbs are very seldom affected. The nails are otherwise healthy. He never gets the white spots which are so commonly seen.

No. V.—*Psoriasis affecting the nails of all the digits of both hands and feet.*

I have recorded at p. 456 of my little book on Syphilis a case of disease of the nails in which the diagnosis was doubtful. Although the patient had four years ago suffered from syphilis, I was inclined to regard the disease of his nails as common psoriasis. The conditions exactly resembled those of the non-specific form of chronic onychitis, and the patient had suffered from dry eczema before he had syphilis. Subsequently to the publication of the case further peculiarities were developed, which are described in the following notes :

Dr. Hawkins, of Bishopsgate Street, whose patient he was, kindly sent him to me again in November, 1887, about a year after my first notes. He had not had much treatment during the year, because it had been thought that the arsenic which I had prescribed caused dyspepsia.

His nails had got much worse, and now presented an extraordinary condition. They were quite loose from their beds in their whole length, from lunula to tip, but were neither fibrous nor broken. They continued hard and smooth on their surfaces, and gave him no inconvenience. Although they adhered at their roots only, yet they did not exfoliate, nor had they been often torn off. The root seemed to have extended upwards under the cuticle, and was at this part unusually strong, being felt under the skin as a very hard edge. The nail bed was quite dry. Most of the nails could be lifted up so as to examine the whole length of the exposed bed. In one instance in which the nail was curved we could look under it from side to side, as under the arch of a bridge. The roots of the nails were somewhat reddened and thick, but there was no pain. He had no eczema excepting a little on the scrotum.

There appeared some little reason to suspect that he was on the verge of locomotor ataxy. His "fits of dyspepsia" had been attacks of very violent and causeless vomiting much like crises. He said that his fingers easily became cold and numb. His knee-jump was poor. Pupils acted well. He had experienced some suspicious pains in the limbs, especially about the hips. He had been married two years, and had indulged very freely.

The nails of all his digits on both hands and feet were affected.

No. VI.—*Psoriasis of the nails — Nails loosened from their beds.*

The following observation, like the preceding one, concerns nails which cease to adhere to the nail-bed.

"The flesh is coming away from my nails" was the expression used by the patient. I found that the ends of his nails were undermined, and the nail thus detached from its bed. In some instances the condition extended half down the nail. In others it was only beginning. The nails themselves were not much altered, but were grey and opaque where loose.

It began on the right thumb three months ago. The

fingers on the right hand had not as yet suffered, but on the left hand the three ulnar fingers were all affected.

He was a man of 60, in good health, and had no psoriasis. He was a baker by trade, but had not worked of late.

No. VII.—*Changes in the nails in connection with Neuralgic pain in the hand.*

A case sent to me from the Queen's Square Hospital. Changes in nails. The condition of the two nails which are affected is very peculiar. The thumb has been removed. The nails of his middle and ring finger are in perfect nutrition and scarcely show transverse ridges. Those of the little and index fingers have shrivelled away, and become dry and fibrous. The whole finger tip has shrivelled and become pointed, and there is much corneous swelling about the root bed. The whole hand is much paler than the other, and though there is no special wasting of the muscles, the fingers and hand generally are thinner than the other. It is a condition approaching that of Raynaud's disease. The tips of the two fingers affected are slightly livid and congested, and look as if on the point of passing into dry gangrene. He complains that the hand gets cold. Everywhere the skin is hyper-sensitive, and the pulse on this side is much weaker than the other. It appears to be a case in which there is reflex disturbance of circulation, the pain probably causing arterial spasm.

No. VIII.—*Disease of the nails of the thumb and great toe on the same side—Senility a possible cause.*

A very curious and, to me, novel form of disease of the nails was presented in the case of Mrs. H——, an old lady of 70, in good health. The thumb of her right hand and the great toe of her right foot were the only digits affected. All her other nails were in good order. She had never had any form of skin disease. Nor could I find any explanation of the preference for the right limbs. She had never had

any form of paralysis, nor was she aware that the right side of her body in any way differed from the left.

The toe-nail had been the first to suffer. It had thickened, become opaque and loose, and a surgeon had removed it. It was, Mrs. H—— said, so loose that its removal did not hurt her. Soon afterwards the thumb-nail began to thicken also.

When Mrs. H—— came to me the thumb-nail was lifted up by epidermic growth under it, and it was itself opaque and thick. Its margins were concealed by dry epidermis, and around it there was a certain amount of swelling and congestion. The affection was distinctly one of chronic inflammation, though unattended by pain or tenderness. A sort of new nail had formed on the toe after removal of the first, but it was fibrous and soft, and was continuous with a dry epidermic crust which concealed its edges. As in the thumb, there was a certain amount of swelling and redness around it. I detached the whole nail and its adherent epidermis almost without hurting. The nail adhered only over a small surface. Its structure was so friable that it came away piecemeal. The nail-bed was left raw-looking, but not bleeding. The overhanging borders of the furrow were swollen but almost dry. After taking away the nail I brushed the whole surface over with Fowler's solution, pushing the brush well into the furrow. A sketch of the condition presented was taken as a memorandum, and I left the thumb to be dealt with next day.

The duration of the whole had been only about three months.

The following notes record the progress of the case under treatment:—

October 1st. Her nails are less inflamed. She has used the arsenic every other morning. It causes much pain. It is to be used only every four days and after careful cleaning away of all crusts and shreds.

October 15th. A peculiar feature in the case is the inflammatory swelling of the soft structures, especially around the root. A raised, dusky, red rim surrounds the root and sides of the affected nails. Under the use of liquor arsenicalis with morphia painted on every third day, both

the thumb and toe are much better. The swelling is less and there is scarcely any tenderness. She is taking nuxvomica and arsenic.

No. IX.—*Gout with fibrous Onychitis and destruction of all the nails—Senility a possible influence.*

A gentleman was sent to me by Dr. Myrtle, of Harrogate, who had suffered very severely from gout. His fingers were covered with chalk-stones, and there was a tophus in one ear. He was sixty-seven years of age, and his first attack of gout had occurred thirty-seven years ago. Both his legs were swollen and inflamed, and were in process of transition from solid œdema to elephantiasis. He assured me, and I could well believe it, that he had never submitted to any rules of diet. His only occupations had been, he said, shooting and fishing, and he added, "I should be at them still, if only my legs would let me." I have no doubt that he had lived very freely, but at the same time he had taken a great deal of exercise.

My reason for mentioning this case is, that the patient had by a sort of chronic and atrophic onychitis entirely lost his finger-nails. The nail-beds were bare and shiny, and showed only a few shreds and fragments which represented the nails. Remembering the condition which was present in Lady H——, and that she also had suffered from gout, I am inclined to suspect that there is a gouty form of disease of the nails. As a rule, however, I think that gouty patients have very good nails. They are usually hard, well-polished and bright. It is quite possible that in the case of the old gentleman just mentioned, calcareous disease of the arteries and defective supply of blood, combined with exposure of the hands in field sports, may have had an important share in producing the atrophy of the nails.

No. X.—*A modified form of Psoriasis of the nails with liability to numbness of hands.*

Mr. P——, a chemist, aged 39, came to me (June, 1889) on account of disease of his finger-nails. All his fingers,

excepting the two little ones and the middle one of his right hand, were affected, the thumbs and forefingers the most severely so. He said that his toes did not suffer. In all the condition was exactly alike, and consisted in the lifting up of the nail by the accumulation of epidermis between it and its bed. In all the changes began at the free edge. This accumulation was very hard and dry, and in some places spinous, as if from papillary growth. The free edge of the nail was in some places lifted a quarter of an inch from its bed. The nail where thus lifted had, of course, become opaque, but it was not roughened or fibrous in the least. As the conditions had developed rather rapidly (all as he believed within six months), it was clear that they were due to a constitutional cause. Yet Mr. P—— said that he had never in his life been in better health.

Three years ago, in consequence of dyspepsia and liver troubles, he had left Leicester and gone to a country village, where his health had been thoroughly re-established. He was almost a total abstainer, had never had syphilis, and knew of no history of disorders of the skin in his family. He had himself no trace of psoriasis or other skin disease. The only peculiarity which he mentioned as likely to bear upon the disordered nutrition of his nails was that he had recently noticed that his fingers were very liable to become numb. He called it failure of circulation; but it was clearly nervous, since it came from any kind of pressure. He often woke with one hand numb from lying upon the arm. His tongue was peculiar, being almost destitute of filiform papillæ, and consequently somewhat beefy (with sulci).

Arsenic had been given before I saw Mr. P——, and had, he said, made him so dyspeptic that he could not sleep. It had not been continued, and no other measures of treatment had been tried systematically. The nails were not sore, but if one happened to be caught in anything, great pain was caused. Mr. P—— was a married man with several children. He had recently been subjected to much permanent anxiety as to his prospects. One of his children had shown some dry eruption on the limbs, but nothing of much importance.

My diagnosis was that the condition was essentially psoriasis. The conditions differed a little from what I have often seen in psoriasis, in that the sides of the nails were not much involved, but only their free edges. The accumulation of subungual epidermis was also in excess.

No. XI.—*Chronic disease of nails cured by arsenic but followed by Lichen Planus—Symmetrical disease beginning at their roots, and attended by softening and thinning.*

A lady in splendid health had her finger-nails become fibrous and brittle. The thumbs suffered first, next the fore-fingers, and so on. She noticed the edge of the lunula to be too red in the affected nails; no heat of hands or finger-tips.* The breaking of the nails in buttoning things was her chief trouble. No skin disease whatever, but a daughter had intertrigo. Subsequent attack of lichen planus.

Mrs. W——, æt. 38, stout and healthy, consulted me first in July, 1889. Her ailment is a disease of all her nails. She has noticed that it begins by “redness of the half-moon” (the lunula). When this is red she feels sure that the nail will soften. The process is one of thinning and softening of the nail, not of formation under it or of hypertrophy. The nails are soft, red, and broken longitudinally. It begins in the root, and for a time the free edge is not affected. Her toe-nails are not affected.

She is in excellent health and stout. Never had any skin disease, excepting for some years a little roughness of face; nor does she know of any in the family. She has six children, and all have good skins excepting one, who is liable to intertrigo in elbows, knees, and neck. The nails began to be affected last September, the right thumb first. It is now accurately symmetrical. The thumbs are worst, the index fingers next, the middle fingers are less affected, and the ring and little fingers escape. She had formerly beautiful nails, horny and hard. If the soft part of the nail is pressed, a very disagreeable

* It is to be noted that the nails got thin. There was no accumulation under them nor any loosening of their borders, only thinning and loss of lustre with fibrous fluting.

sensation is complained of, "not exactly pain." She easily catches the nails and tears them, but those most affected are so thin that there is nothing to catch. There is no general inflammation of the finger-end. There is rheumatic gout in the family, but no true gout.

Sept. 20, 1889.—The nails affected seem rather more smooth, but there are signs of the two middle fingers becoming attacked. The ring finger of her left had suffered before. The ring of right is free, and the little finger of both has escaped. She has always a cool hand—no discomfort excepting from the nails catching and breaking. She is taking the arsenic in seven-minim doses, with aperient. She thinks that it makes her "a little bilious," and causes the appetite to be defective. No other disagreement. She looks very well.

Nov. 12, 1889.—Her nails are almost well under full doses of arsenic (m v. and m v. of the two preparations *ter die*). We began on July 4th. She has had two attacks of irritability of skin "in every crease," behind knees, in neck, in elbows, and on waist. She left off the arsenic, feeling languid and tired. She became "brownish as if sunburnt," and has now been two weeks without arsenic. She has lost a stone since July, but is still stout. The arsenic caused throbbing in her heels and the skin peeled; she had much sense of weight in her feet.

She left off the arsenic for four days and felt better; took it again, and again had the same symptoms, and in an intensified degree. She had never had the pain in the heels before. It has quite disappeared since leaving off the medicine.

Jan. 30, 1890.—I last saw Mrs. W—— on Nov. 12, and we left off arsenic as it disagreed. She took a little, however (one bottle), again in the present month. Her nails have continued to improve, and may be considered well, though still a little fibrous. She is in excellent health, but has now a new symptom in the development of groups of spots of lichen planus. It takes the form of polished flat-topped papules "in the creases." She had no skin disease whatever during the treatment for her nails. She never had any, excepting once some desquamative affection of the face, quite temporary, years ago.

She has felt very well indeed since the eruption appeared, and a severe contused wound which she received in her temple has healed remarkably well.

The eruption is very characteristic. It occurs on the neck, in the armpits, between and under the breasts, and on the trunk where the strings press. "If I scratch it the spots run together and become rough and scaly." This expression exactly fits the state of things. On her neck the papules are discrete, smooth-topped and shiny; on the waist these characters are quite lost, and the patches are scaly, rough and brownish. It is an intertrigo, in that it occurs in armpits, axillæ and popliteal spaces, and is just beginning in flexures of elbows. It occurs now on the thighs also. It itches at bedtime but not in the day. Nothing is to be seen in the mouth.

Mrs. W—— reminds me that in November she complained to me that her skin in some parts was dry and brown. We attributed it to the arsenic. The parts then affected were much those now attacked, but her face also was flushed. It was a temporary attack, and the face peeled after it.

She considers that she has always had "a dry skin"; one of her children also has a dry skin, and is liable to some eczema intertrigo.

May 14, 1890.—On Jan. 30 I ordered Antim. Pot. Tart. gr. $\frac{1}{16}$. She took it only three weeks. It abated the irritability seemingly very soon. She got influenza and left it off; she stopped the ointment also.

The antimony did not sicken (excepting once). The eruption is fading everywhere; as she says, "quite dead." The worst part on her waist is quite free from irritation. She is in good health; still constipated. The nails are for the time well, but she thinks "that at the root of the half-moons a little redness is showing, and this was the way they began before."

July 10, 1890.—Mrs. W—— informs me that it is just a year since she first came to me. She is now in excellent health. All her nails have long been well, but there is now a little tendency to relapse in the nail of right thumb, which is slightly rough and fibrous. She thinks that the lunula gets

red as the first stage. I do not observe much evidence of this.

The eruption which began, be it remembered, during the arsenic treatment for the nails, is now quite well, excepting some fading patches in waist. Mrs. W—— has been taking antimony in $\frac{1}{16}$ doses for two months, and says that she was never in better health. The patches in her waist are, she says, just where her dress presses.

Comments.—In the above case we have a good example of inflammation of the nails of constitutional origin beginning not as psoriasis usually does, but at the roots, and productive of thinning. It was, I think, definitely cured by pushing arsenic until distinct symptoms of disagreement occurred. The patient became brown, and the hands and feet numb. With the arsenic cure of the onychitis there came an eruption resembling lichen planus, and this in turn appeared to be cured by the use of antimony. One point of interest is that the nails were, after having been severely affected, restored to a state of perfect soundness. The patient lived at a great distance and came to London but seldom, a circumstance which must excuse the fragmentary character of the notes.

No. XII.—*Chronic inflammation of the ends of the digits in a healthy old man—History of frost-bite in early life.*

It is often of much importance as helping to the interpretation of exceptional phenomena to investigate the life history of the individual even at periods which may at first sight appear too remote to be likely to have taken any share in the result. By doing this systematically we often obtain unexpected light as regards the causation of the phenomena before us. The case which I have to relate is, I think, an excellent illustration of this, and proves that the whole of the patient's antecedents throughout his life should be taken into account if we would rightly explain the proclivities to disease exhibited by any of his tissues, limbs or organs, at later periods. It is by no means a case in which I would seek to

attribute what occurred in later life wholly to what had been suffered in former years. Few morbid processes are so simple in their nature that they can be adequately accounted for by one occurrence or one class of influences. Nearly all diseases result in their final sum from a partnership of causation in which several or many factors have taken their respective shares. To this statement the following case is probably by no means an exception.

A gentleman aged 72, the brother of a surgeon in Devonshire, consulted me on account of an eczematous inflammation of his hands and other parts, which had fallen with especial severity on his finger-ends and which had quite disorganized his nails. The condition of the latter is well shown in a portrait which is preserved in the collection of the Royal College of Surgeons. The disease was however by no means an affection of the nails only, nor had it probably begun in them. It was an affection of the ends of all his digits, displaying its most conspicuous features in the nails on account of their terminal position. The disease was said to have begun at the root of one finger-nail eight years before the patient consulted me. It had gradually spread, being always worse in cold weather, and better, though never quite well, in summer. When I saw him, all his nails, both of fingers and toes, were thinned and broken up, and at their roots the skin was in an eczematous condition, with in some cases deep cracks across their roots. During the winter of 1888 all his nails had, he said, come off. A few days of frosty weather were, he added, at any time sufficient to make his nails and finger-ends so sore that he was quite disabled. Recently the eczema had shown some tendency to spread to the body generally. The skin had become irritable, and was much scratched. The only parts which were really eczematous, however, were his ears. Mr. N——, although distinctly senile and reporting himself as “at times very weak,” looked tolerably well. He had, he said, never suffered from a chilblain in his life, and he had never had anything amiss with his fingers until eight years ago. He was an amateur gardener, and whenever not actually disabled was fond of using his hands in all weathers. On inquiring as to any

spécial cause for the conditions into which his hands and feet had passed, I found that forty years ago, when in Canada, he had once been severely frost-bitten. The parts affected by the frost-bites were his hands, feet, and ears, and these were precisely those on which the eczema had now appeared. The partnership which I would suggest in this case would be something like the following. The parts affected by frost-bite had probably suffered some slight permanent damage as regards their nutrition: so slight that during the middle periods of life, when in vigorous health, nothing occurred to them which was thought worthy of notice. When, however, the patient's vital powers began to fail in connection with senility, his arteries to become calcareous and his tissues generally to undergo retrogressive changes, then the effect of the old frost-bite became manifest. To this sum of influences we may add his recent habits of exposing his hands during gardening operations.

No. XIII.—*On overgrowth of the nails in connection with Venous Obstruction and Cyanosis.*

A case recorded by Dr. John W. Ogle,* and which I had the pleasure of seeing at the time, is of the utmost value, in proof that a retarded venous circulation favours overgrowth of the parts affected. The patient had an aneurism of his subclavian, which in the end occluded the artery, but which by pressure on the veins kept the hand in a state of cyanosis. The result was that the ends of the fingers became clubbed and the nails very much hypertrophied. They were broader, thicker, and longer. The fingers of the other hand remained quite normal. It is to be observed that in all conditions of cyanosis the fingers become clubbed, not overgrown as in acromegaly. It may be that overgrowth of the nails causes this expansion of the finger end.

No. XIV.—*Overgrowth of nails from neglect.*

I find gravely recorded in the Pathological Society's Transactions a case illustrating the length to which toe-

* See "Pathological Society's Transactions," vol. x. p. 104.

nails may grow when never cut and when exempted from the pressure of the shoe. Although the cause is obvious and one of the commonest, and the result scarcely deserves to be named "outgrowth of nails," yet I must admit that it was an extreme instance. The nails of the great toes measured respectively six and four inches in length, and the others in diminishing proportion until those of the little toe were scarcely larger than natural. The old lady, the subject of the case, was 84 years of age, and had died of natural decay in a work-house, no doubt bedridden.

Such overgrowth is very common in the claws of animals kept in confinement with no opportunity for wearing them down by scratching.

No. XV.—*Absence of the nails at birth, with Alopecia.*

I find mentioned in my notes of the cases of a brother and sister named Trigg, who had congenital alopecia, which persisted to some extent during childhood, that at the time of birth they had no nails. They were aged eight and seven respectively when under my observation in September, 1875. Their nails had then grown well, but the development of hair was still exceedingly defective. All the digits of both toes and fingers were affected.

ON HEREDITY IN REFERENCE TO DISEASE.

(Continued from page 53).

An instance of Congenital Distortion of the Hands in father and son—Association with Congenital Ptosis.

Whilst congenital distortions of the feet are tolerably common, it is extremely rare to witness anything of the same kind in the hands. I allude, of course, to congenital defects of the digits in which the muscles are implicated, and not to defects or superfluities. I do not at the present moment recollect to have ever seen an example of the former kind of deformity, excepting the one which I am about to mention. A gentleman who consulted me about another matter, presented a symmetrical and very peculiar deformity of his hands. The middle, ring, and little fingers were all turned towards the ulnar side, and at the same time somewhat bent towards the palm at the carpo-metacarpal joint. Thus the hand could not be laid flat on its back, and his remark was, "You would break the fingers if you tried to straighten them." His index finger could, on the contrary, be bent backwards. He could close his fist and use his hand well, but when he closed it, it was always with a twist towards the ulnar side. As he did not appear to much relish my paying attention to his hands, I did not examine them so carefully as I should have liked to have done. There was no paralysis, nor any defect in the formation of the fingers. The condition gave to his palms a peculiar appearance of hollowness. He told me that his only son had hands exactly like his own. The deformity of the hands in the father, and I believe in the son also (but I did not see the latter), was associated with congenital drooping of the eyelids. The latter condition was well marked in the

father, though not extreme in degree. He thought it had much diminished as he had got older.

*Family diseases as illustrative of inherited tissue proclivity—
Parallel between Retinitis Pigmentosa and Kaposi's Disease.*

In retinitis pigmentosa we have perhaps our best example of an inherited tissue tendency of which no evidences are ever present at birth, but the development of which is for practical purposes unconditional. No exciting causes seem to be required. I wish to speak cautiously on this point, for it may be that mere exposure to light is the exciting cause, failing which the retinal changes would not occur.

What retinitis pigmentosa is for the eye, Kaposi's disease or xerodermia pigmentosum is for the skin. In neither of these diseases are any changes in the vulnerable organ to be observed at birth, but in both they set in during very early life and are steadily aggressive. No exciting influences other than ordinary exposure to air and light are requisite to set them going, and no measures of treatment excepting exemption from exposure exercise any influence on their progress. In the one case the retina is disorganized with pigmentation, and in the other the skin (again with pigmentation). In the latter, the skin of exposed parts only suffers.

Both are "family diseases." If there be many brothers and sisters, two or more of them are certain to suffer. As regards Kaposi's disease we have probably a minor form in the tendency to freckle, but I am not aware that any minor form of parallel character has been observed in relation with retinitis pigmentosa.

Congenital defects of different kinds in the same patient.

An interesting case illustrating the multiplicity and at the same time the multiform character of congenital defects was sent to me from the Marylebone Infirmary by Dr. Savill. The patient, a young woman of 16, had a flabby hypertrophic condition of the skin and cellular tissue of both lower extremities, but more especially of the right. The skin could be taken up in loose thickened folds. In places there were

visible what looked like large varicose veins, but exceedingly ill-defined and without discoloration. The finger passed over some of these distinctly appreciated a hollow, but there was no definite filling of them with blood. These were especially present near to the knee and in the popliteal space. In some places what appeared to be a dilated vein presented itself, not as a tortuous trunk but simply as a globose elevation. There were two of these placed almost symmetrically on the inner edge of the buttock. They were quite soft as if containing fluid, and had a slightly bluish tint, but I much doubt if there was any circulation through them. The whole of the right lower limb was considerably larger than the other, but the left was involved to a slighter degree in similar changes. There were a number of the ordinary brown pigment moles on the skin of the back, one at least of considerable size, and all quite superficial. Interspersed with these were a few venous nævi of a deep purple colour, quite superficial, easily emptied by pressure and filling again immediately. The largest of these was on her right shoulder.

The case illustrates with emphasis what I have often observed before, that when there is a tendency to defect in development of the skin, it is seldom restricted to one tissue. Those who have nævi often have moles as well, and it may be several varieties of them.

Slowly progressive mutilation of both feet (Necrosis Mutilans)
—History of several members of the family very similarly affected (two generations)—Some tendency to affection of the hands also.

The following fragmentary notes refer to a very unusual case in which a woman has lost the anterior halves of both feet by a slow and painless necrotic process, not unlike that which occurs in the affections to which the adjective *mutilans* is applied. We have a *lepra mutilans*, a form of true leprosy (tolerably common), and a *lupus mutilans* (very rare). In the present instance there is no leprosy nor any proof of tendency to lupus; and a very remarkable feature in the case is that several relatives are said to have suffered from it. Concerning this latter point I am obliged to trust to the

woman's statements, for I have not myself seen those who are stated to be so affected.

The woman was under my care in the London Hospital many years ago, when I believe I published in one of the journals some brief mention of her case. Two years ago, whilst under the care of Mr. Clinton Dent in St. George's Hospital, she was brought by that gentleman to a meeting of the Dermatological Society, where I again saw her, and where her case excited great interest. I have never seen a similar case with a corresponding history, and desire now to place the principal facts on permanent record.

Mrs. E——, aged 58, single, rather stout and pale. Has kept at her work as a cook most of her life. Her disease began when she was 26, as "a corn under the tread of the great toe, which ulcerated down to the bone." The left foot was first affected, and soon afterwards the other. The process gradually spread from one toe to the others, and little bits of bone crumbled away. She had a good deal of pain in the feet before the abscesses broke and afterwards. At times she had swollen glands in the groins.

The disease has gradually progressed until it has destroyed the fronts of the feet and reduced them to their present condition. They have now the appearance of stumps after amputation through the middle of the metatarsus, but with the difference that small portions of the ends of the toes still remain. Thus most of her toe-nails are still present. She does not remember that she ever suffered from chilblains much, and she does not consider that she suffers from cold more than others.

There has never been any loss of bone from the hands, but they have not wholly escaped. There is some general thickening of the skin of the palms and palmar aspects of the fingers. Between the ring and middle fingers of both hands, in exact symmetry, a sort of ulcerated corn has developed which has resulted in closing up the web to some extent. Both little fingers are contracted, and the palms generally are tight.

Her parent's family was five brothers and herself. Two brothers have suffered in exactly the same way as she has

done. She believes that it began in one brother at ten years of age and the other at twenty. One of the brothers who suffers still works at Pickford's (younger than herself).

She believes that her maternal grandmother had her feet affected somewhat like hers. A cousin, a mother's sister's son, "had feet just like mine." He was "a fine-built man." Others have suffered more lightly. One had very "bad scurvy in the hands and feet."

Although I have repeatedly tried to get opportunities for examining her relatives I have not succeeded. From her statements we must believe that some tendency to similar conditions has been shown in several generations, though we may doubt her testimony as to there having been close similarity in all the cases.

The facts seem to point to the family prevalence and hereditary transmission of defective nutritional endowments of the extremities, especially of the feet. As the result of this the feet do not bear ordinary use. Somewhat analogous phenomena are witnessed, though with implication of different tissues, in examples of remarkable proclivity to corns. In rarer cases conditions of keratosis of the whole sole may result. Of this the case narrated at p. 74 is a good example. A still more remarkable one is found in a monograph published a century ago by Sæmmering, in which the palms and soles of a healthy man underwent peculiar hypertrophic processes, the disease extending through his whole life.

Perhaps, however, the closest parallels are found in the more severe examples of perforating ulcer of the foot. In this occasionally the bones become involved, and undergo necrosis in fragments. A condition of shortening of the foot may occasionally result very like that described above.

I have at present under observation a case of advanced ataxy in which this has occurred in one foot. I have seen the patient, on and off, for ten or twelve years, he having first consulted me for a perforating ulcer of the foot. Fragments of the metatarsal bones have from time to time come away without pain, and his foot has gradually become shortened, until it much resembles that of the woman whose case is described above.

Susceptibility to Contagious Disease.

Interesting facts may be collected in reference to hereditary susceptibility to special forms of disease, resulting either from contagion or other external influence, and incapable of spontaneous origin. It is admitted on all hands that the exanthemata, during the same epidemic, are apt to affect some families with far greater severity than others; and that sometimes in the same family several individuals may suffer very severely and several others very lightly, the difference probably being due to inherited peculiarity of constitution. There appears good reason to believe that in communities where certain specific poisons have been prevalent for many generations, a degree of immunity as regards their effects is obtained. Many facts are on record in proof of the severity with which the exanthemata affect races who have never before suffered from them, amongst the most recent of which we have the death of a whole company of Esquimaux in Paris from small-pox. Diphtheria, a contagious disease, although not a specific fever, is remarkable for the different degrees of severity with which it affects different individuals. Dr. Hubert Airey has recorded some remarkable examples of this. In two families attended by him, and each consisting of six children, every child suffered. In one family all recovered, and in the other five died. In another family, six out of seven children perished.

I have myself had occasion to do tracheotomy for the child of parents who, in three different houses, and at distant parts, had lost a child from diphtheria.

The Empress Josephine was, as we are informed by Brettonneau, liable to diphtheria. Her daughter Hortense suffered also. A son and nephew of the latter both died of croup.

There can be no doubt that in explanation of the different degrees of severity of contagious diseases in different persons, very large allowance must be made for inherited peculiarities of constitution; and that in many instances adjectives which have been used in connection with the name of the disease, or even the name itself, have been suggested by peculiarities

which were due, not to any modifications in the morbid cause, but to peculiarities in the patient.

Dr. James Reid, in the twenty-seventh volume of the "Medico-Chirurgical Transactions," has described the cases of two brothers who, of different callings and living in different places, were alike the subjects of tubular expectoration from the bronchi.

The late Mr. John Gay supplied me with the following fact:—

"Case of twins (females). They very closely resembled each other, and at the age of five both were simultaneously overtaken by whooping cough—no other case in the family—and both after a few days died, the only deaths that have occurred in the family."

Idiosyncrasy to Tobacco Amaurosis.

Some curious instances of the inheritance of an idiosyncrasy which ultimately leads to disease have come under my observation in connection with a form of amaurosis believed to be due to tobacco. Some years ago, at Moorfields, a young sailor who had been smoking largely presented himself with this condition. He told me that a cousin of his had been under the care of my colleague, Mr. Hulke, with failure of sight much like his own. On application to Mr. Hulke he kindly forwarded me the notes of his patient, in whose case he also had diagnosed Tobacco Amaurosis. In both patients the disease was arrested on disuse of tobacco. Some years later a woman who was the mother of one of these patients, and the aunt of the other, came under my care, being herself the subject of a precisely similar kind of amaurosis, that is, primary, symmetrical, pallor of discs without any other symptoms of nerve disorder. In her case I believe the disease progressed to absolute blindness. She had never smoked. In her the amaurosis came on at the climacteric period, whilst in the two young men it occurred in early life.

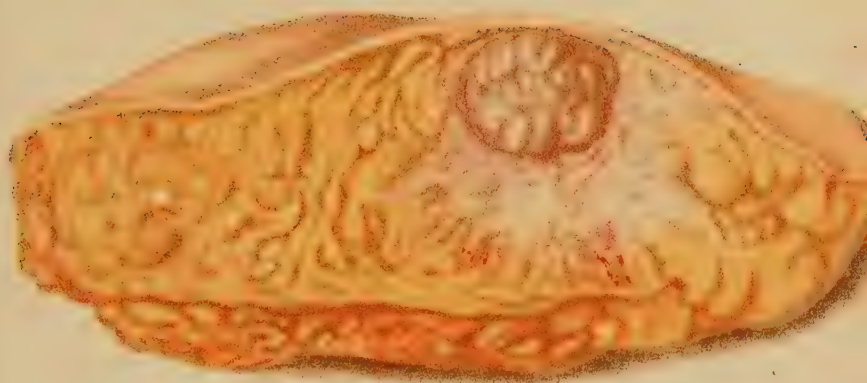
My impression is that we ought to regard these cases as showing the influence of tobacco as an exciting cause of a disease to which family peculiarity had already predisposed.

More recently a young clergyman from Wales has been

PLATE XXIV.

ADENOID TUMOURS IN THE BREAST IN THREE GENERATIONS, WITH SCIRRHUS IN ONE OF THEM.

THIS plate is of interest as an illustration of inheritance, and also of the supervention of malignant disease in close proximity with an innocent growth. The lower portrait shows the breast of a lady named Mrs. H—, and the upper one is that of one of her daughters. Twenty years ago I removed Mrs. H—'s breast on account of a rather rapidly-growing tumour. It proved to be a soft adenoid; no recurrence or gland implication ever took place, and she is still living and well. She was about fifty years of age at the time. A few years ago one of her daughters, Mrs. W—, aged forty, came under my care for a growth which I could not doubt was scirrhus. She asserted that she had had a tumour ever since girlhood. The section of the breast is shown in the sketch. It will be seen that there is an encapsuled and lobulated adenoid growth the size of a marble, and that around this there is a pale fibrous looking, ill-defined area of thickened tissue. The latter was characteristically scirrhus. It adhered to the adenoid growth, but did not infiltrate it. I have since removed the axillary glands on account of their implication. One of Mrs. W—'s daughters, a granddaughter of the first patient, has, at the present time, an adenoid tumour in one breast.



under my care with threatened amaurosis of the same kind. He had the characteristic central scotoma, on which he could not distinguish red and green spots. He had been living a solitary life, and smoking freely a coarse, strong tobacco. The chief interest of his case lies in the fact that he told me that two of his brothers were then suffering in a precisely similar way. They were both married men, farmers on the Welsh hills, under conditions very favourable to health. They were both liberal smokers.

Here again we seem to have examples of a family susceptibility to the poisonous influence of tobacco. It is to be added that there was no history of amaurosis in former generations, and that the parents were not consanguineous. Mr. Crichton, who had seen this patient before I did, had also diagnosed Tobacco Amaurosis, and this was further confirmed by Mr. Nettleship, who carefully investigated the case at my request. There were four other brothers in the family, none of whom had suffered.

(To be continued.)

THERAPEUTICS, DIET, ETC.

(Continued from p. 91.)

No. VIII.—*A Plea for the more liberal use of Butter.*

No dietetic reform would, I believe, be more conducive to improved health amongst children, and especially to the prevention of tuberculosis, than an increase in the consumption of butter. Our children are trained to take butter with great restraint, and are told that it is greedy and extravagant to eat much of it. It is regarded as a luxury, and as giving a relish to bread, rather than as in itself a most important article of food. Even in private families of the wealthier classes these rules prevail at table, and at schools and public boarding establishments they receive strong reinforcement from economical motives. Minute allowances of butter are served out to those who would gladly consume five times the quantity. Where the house-income makes this a matter of necessity, there is little more to be said than that it is often a costly economy. Enfeebled health may easily entail a far heavier expense than a more liberal breakfast table would have done. Cod liver oil costs more than butter, and it is besides often not resorted to till too late. Instead of restricting a child's consumption of butter I would encourage it. Let the limit be the power of digestion and the tendency to biliousness. Most children may be allowed to follow their own inclinations, and will not take more than is good for them. The butter should be of the best and taken cold. Bread, dry toast, biscuits, potatoes, and rice are good vehicles. Children well supplied with butter feel the cold less than others, and

resist its influence better. They do not "catch cold" so easily. In speaking of children I by no means intend to exclude other ages, especially young adults. Grown-up persons, however, take other animal fats more freely than most children do, and are besides allowed much freer selection as to both quality and quantity. It is not so necessary to raise any clamour for reform on their account.

It may not be out of place to remark that if a greatly increased demand for fresh butter should result from a change of custom such as that suggested, it could easily be met by those concerned. There need be no increase in the cost of the article, whilst at the same time a benefit would be conferred on our home farmers.

No. IX.—*On the use of Aconite.*

I have for many years been in the habit of prescribing aconite in doses which my medical friends assure me are very dangerous. Yet I have never had any accident or an approach to one. My favourite preparation is the tincture (not Fleming's), and the dose ten minims three times a day. For rheumatic iritis I invariably order this, in combination usually with iodide of potassium and alkalies. On one occasion I had a remarkable illustration of its value. I had treated the same patient repeatedly for annually recurring and severe attacks of iritis. On one occasion he insisted that the medicine did not relieve him as it had formerly done. I compared my prescription with those of former years, and found that though very similar in other respects, I had omitted the aconite. It was added, and relief soon followed. Since that I have never forgotten it. In almost all cases of rheumatic affections attended by pain, aconite seems to suit, and I have used it also much in inflammatory states of the skin, eczema, &c., especially when they are pruriginous. For the pain of cancer it is also, I think, decidedly useful. I recently saw a lady who had for this object continued my prescription of ten minims three times a day for a whole year. It had never disagreed in the least, and she believed that it had to some extent controlled her pain.

From statements made to me by many professional friends, I am inclined to believe that there is far more danger in smaller doses at short intervals than in those which I use. I may repeat that I have never witnessed ill effects. My patients are always forewarned that they are using a powerful remedy, must be careful to measure the dose, and must leave it off if the tongue tingles. For acute inflammations of important viscera I have seldom used aconite, preferring the remedy next to be mentioned. I can well understand that if it be given every half-hour or every ten minutes, as some recommend, that however small the dose it will need most careful watching, and may easily prove dangerous. I can also easily believe that such administration may be very efficacious, for it is undoubtedly a very powerful remedy.* My chief reason for penning this note is, however, to bear testimony to the harmlessness of ten-minim doses not oftener than three times a day, but continued indefinitely, and to their efficiency in a variety of inflammatory, pruriginous and painful affections.

No. X.—*On Tartar Emetic in small doses, long continued.*

Tartar emetic is another of the remedies in which I place unbounded confidence for certain definite objects. In small doses long continued, I believe that without causing nausea or loss of appetite it is decidedly favourable to the subsidence of all local congestions. It tends to equalize the circulation. Many of my eczema patients have taken it in eighth of grain doses three times a day for weeks together, and have declared that they felt stronger and had better appetites than before. A sixteenth of a grain is, however, for this purpose usually sufficient, but it should be given not three times a day but every four hours (sleeping time excepted). I may admit that in giving small doses of any drug in this way

* Pereira records a case of poisoning by medicinal use in rheumatic fever. The patient's condition was for a time most critical, but he recovered and was completely cured of his rheumatism (page 2174).

without allowing it to produce any appreciable effect, it is never safe to infer that it does anything at all. Thus in eczema cases I always use local remedies at the same time. I state here my impressions. Concerning the great value of tartar emetic when pushed to nausea in acute inflammations, I recorded my experience some years ago in the Cavendish Lecture of the West London Medical Society.

MISCELLANEOUS MEMORANDA.

(Continued from p. 96.)

No. XI.—*On the importance of the systematic record of family histories in private practice, and of obtaining post-mortems.*

A clergyman on entering upon a "cure of souls" in a new parish ought to systematically acquaint himself with the history and peculiarities of his parishioners. He should seek to know what have been the virtues and what the failings of each family, and, when practicable, of its individual members. He should gradually acquire and register for future use as much information as he can of former generations. By so doing he would greatly enlarge his knowledge of human nature and fit himself for more definite usefulness.* Nor is it easy to imagine any more interesting pursuit for the scientific practitioner of medicine than the careful registering, in reference to inherited tendencies, of the peculiarities of individual members of the various families under his charge. In many instances he will be personally acquainted with all the principal facts respecting the health of all the members of the existing generation, and his knowledge will often extend to the preceding ones. From year to year, as time goes on, especially in village practice, when his patients are his neighbours, he will have the opportunity of watching the development of proclivities

* For examples of what I mean, the reader may consult the grimly accurate biographical sketches given in Crabbe's "Borough," or, if he prefers poetry, those which occur in Wordsworth's "Excursion," more particularly the pastor's narrative in "The Churchyard among the Mountains" (Book VI.). These last are as faithful as Crabbe's, and are also full of pathos and beauty.

already recognized, and of noting the influence of new combinations.

Portal has some excellent observations on this subject, and insists also upon the importance of performing autopsies in private practice "in order that those concerned should obtain for the benefit of the living, an accurate knowledge of family proclivities." We often hear it said that it is impossible to obtain post-mortems in private. I believe it to be much less so than is generally alleged. If the reasons for desiring to do them be rightly urged they will seldom be refused. With many the public good suffices, and very few indeed resist the plea that it will benefit the family.*

No. XII.—*On Circumcision as preventive of Masturbation.*

The appended letter has been sent to me from "the Refractory Gallery" of a lunatic asylum. The patient who sends it is himself a surgeon. I venture to bring it before my readers because I believe that the subject to which it refers is an important one, and that my correspondent's views on it are worthy of consideration. The subject is not a novel one. My late colleague, Mr. Curling, I know held the opinion that circumcision was of advantage as preventing the tendency to masturbation. At one time he tried to collect facts in order to institute a comparison between Jews and others in respect to that habit, but the distasteful nature of the inquiry I believe caused him to abandon it. It is indeed one upon which it is impossible to collect statistics. General impressions are all that can be had. I have myself, from considerable experience, formed a strong opinion that Jewish young men do not suffer nearly so frequently as others from the maladies which we associate more or less definitely with masturbation and nocturnal emissions. We must remember, how-

* Rarely indeed, according to my experience, will it be necessary to approach the *ultima ratio* of Hunter who, provoked by the insuperable and stupid selfishness which was displayed, at last lost his temper and exclaimed, "Then, Sir, I heartily hope that yourself and all your family, nay all your friends, may die of the same disease, and that no one may be able to afford any assistance."

ever, that in their case we are dealing with the circumcision of infants as preventive, not with that of adults as curative. Under the latter conditions the operation is far less hopeful. Still, I am inclined to believe that it may often accomplish much, both in breaking the habit as an immediate result, and in diminishing the temptation to it subsequently. I know that the reply from specialists will be that the disorder is in the nervous system, and not in the organs, and this no doubt is in part true. The reiterated complaints and confessions of hundreds of young men, however, force on me the conviction that the habit in question is very injurious to the nerve-tone, and that it frequently originates and keeps up maladies which but for it might have been avoided or cured. I confess I see no reason why a man admitted into an asylum for ailments associated with that vice should not be allowed such chance of relief as the operation offers. I may indeed go further than this and avow my conviction that measures more radical than circumcision would, if public opinion permitted their adoption, be a true kindness to many patients of both sexes.

THE HOSPITAL FOR THE INSANE, W——, E——,

Oct. 31, 1890.

DEAR SIR,—The *British Medical Journal* of the 27th of September, 1890, on p. 769, under the heading "A Plea for Circumcision," gives this quotation:—

"It is surely not needful to seek any recondite motive for the origin of the practice of circumcision. No one who has seen the superior cleanliness of a Hebrew penis can have avoided a very strong impression in favour of removal of the foreskin. It constitutes a harbour for filth, and is a constant source of irritation. It conduces to masturbation, and adds to the difficulties of sexual continence. It increases the risk of syphilis in early life, and of cancer in the aged. I have never seen cancer of the penis in a Jew, and chancres are rare.—JONATHAN HUTCHINSON, *Archives of Surgery*."

I have been an inmate here, Sir, for more than seven years, and shall feel exceedingly obliged if you will kindly tell me whether you are aware of any reason why, if I am a confirmed masturbator, circumcision should not be performed upon me?

Will you kindly also tell me whether you think that any good reason can be advanced why Messrs. L——, S——, H——, H——, and D—— (the first three quite young men), who have all told me that they masturbate, should not have circumcision performed upon them?

I mention these gentlemen's names because it seems necessary to establish the facts I mention, so that in the event of inquiry into the truth of my statement being made, you will find that the above gentlemen have been locked up here for many months past, that they have been masturbators during nearly,

if not quite, all that time, and that nothing worth calling efficient medical or surgical treatment has been given them, or been done to them, by either of the medical men, for the cure of this imperious habit."

I trust it will not be supposed from what I have written above that I believe that the removal of the testes or ovaries will either completely or in all cases subdue the sexual passion. All that I contend for is that such operations are often and in most persons conducive to that end.

A recent number of the *Gynecological Journal* has a curious misprint which expresses the truth more fully than the word intended by the writer. Discussing the question of suppressing sexual desire by removal of the testes, it is stated that in order to get that result "the whole pelvis must be taken also." The word which has been printed pelvis was no doubt "penis" in the manuscript, but the printer's devil has for once shown his physiological insight.

No. XIII.—*On the differences between Syphilitic Teeth and those damaged by Mercury in infancy.*

No two cases could better illustrate the differences between syphilitic and mercurial teeth, than those of two young ladies who were with me on the same morning a few weeks ago. One was the subject of zonular cataract, and the other of interstitial keratitis. In the latter there was the history, as usual, of very severe and long continued convulsions in infancy, and of the liberal use of mercurial powders for their control. All her incisor teeth were defective in enamel, and were thin, serrated, and discoloured. The eight premolars were all good, and well covered with white enamel; but the four test teeth, the first molars, were in every instance wholly denuded of enamel, and presented a rough spinous surface, which was much discoloured. In the patient who suffered from interstitial keratitis and was the subject of inherited syphilis, all the teeth were perfect and covered with white enamel, and of good colour, with the exception of the upper central incisors, each of which presented a single crescentic notch. In this instance the young lady presented no indications of inherited syphilis excepting her teeth and her

keratitis. She had not been ill during infancy in any way, and had consequently escaped mercurial treatment. In a large majority of instances in which we meet with syphilitic teeth, the patients have taken mercury in infancy, and the enamel-defects consequent upon its use are present together with the notch indicating hereditary taint. This frequent, indeed ordinary, coincidence of the two sets of conditions in the same case, has led to much confusion, and some difficulty of diagnosis on the part of those who have not learned to discriminate.

No. XIV.—*Cases illustrating the sequence of Alopecia areata after Ringworm.*

I have had during the present week two cases of much interest in reference to the hypothesis that common ringworm is the cause of alopecia areata. In the first of them a lady, the wife of a surgeon, came to me with large patches of alopecia on her scalp. She emphatically disclaimed at first all possibility of ringworm-contagion. At the end of our interview she admitted somewhat reluctantly that four years ago several of her children had suffered from ringworm, and that she had attended to their heads. She was not aware at the time that she had contracted any disease, and it was not till three years later that the first bald patches showed themselves on the scalp. I mention this case because it is one of many in which the first evidence seemed opposed to the theory, and in which it was only after some insistency that the facts came out. In many patients there is a great desire to forget and to conceal the occurrence of ringworm in the family.

My next case is a more definite one. A young surgeon wrote to me that he had been suffering for some months from Area of the beard, the cause of which he could not conjecture. When he came to me a few days later my first question of course was, "Have you had ringworm?" To which his reply was, "Yes; I had a bad attack four years ago, in the beard, which I thought I had caught at a barber's shop; I found plenty of cryptogam with the microscope." It appeared that he had cured himself with much trouble, by epilation,

&c. Three years elapsed before the alopecia appeared. The latter was in a most typical condition, the patches being smooth and bald, and well-defined. The ringworm had been limited to the beard, and the alopecia was as yet restricted to the same position.

No. XV.—*Very severe Herpes frontalis in a gentleman who was taking full doses of arsenic for Psoriasis—The eyeball affected and exceedingly painful.*

Mr. W——, æt. 45, suffered a most severe attack of herpes frontalis. He was taking at the time that it began Liquor Sodæ Arseniatis m x ; with Liq. Arsenicalis, m iij, t.d. He had taken this drug since June 23rd, and the herpes began on July 23rd. The herpes was on the right side, and a few vesicles came on the tip of nose. The whole right forehead was covered with vesicles. The pain was chiefly in the eyeball. On Thursday, July 24th, he had called complaining of pain in the eye. I did not then observe any herpes, and told him to have removed a tooth which he thought was causing the eye-ache. During the next night the eye-ache was "terrible." Mr. W—— says that he never had such pain, and that he thought he should lose his senses. Antipyrin and morphia were at first of no effect, but on the third night a subcutaneous injection of the latter procured sleep. On inquiry as to the character of the pain, Mr. W—— says that it was a grinding pain as if the eyeball would burst. It was in the eye and all round it.

It appears that on the date of his visit to me for the "neuralgia," and when I advised removal of the tooth, there were, he says, some vesicles just appearing on his forehead, but as the skin on which they occurred was already inflamed by psoriasis I did not notice them.

It is worthy of note that Mr. W——, who has long suffered from psoriasis, has taken arsenic often before, and for long periods. He never, however, took it in such large doses as those which I ordered on June 24th. He never before had herpes.

No. XVI. — *Supposed increase of Cancer in New Zealand—A fallacy.*

I have repeatedly done my best to attract the attention of cancer-statisticians to what appears to me an all-important fallacy. I allude to the fact that as cancer is a disease of senility,—a mode of natural death in old age,—we ought to expect an increase in the number of deaths in ratio with the increasing average longevity in any given district. The greater the number of those who have lived to fifty, the greater will be the number of cancer deaths. Our domestic animals illustrate this well. Our dogs, cats, asses, and horses die of cancer; our sheep and oxen never.

An interesting paper by Dr. Gordon Macdonald, in *The New Zealand Medical Journal* for July, has afresh awakened my interest in this question. Dr. Macdonald is alarmed at the increase of deaths from cancer in New Zealand. The facts show that it has doubled in ten years, although the population increase has been but one-fifth. No figures are given as to the total number of those who now die after fifty as compared with that of the earlier period. It may easily be the fact that the colony is now for the first time reaping its crop of aged persons. In former years it received many young immigrants, and it is not improbable that the number of aged was ten years ago much less than it now is. In other places where cancer is said to be increasing, it is well-known that longevity has also increased. I am confirmed in the opinion just expressed by observing that Dr. Macdonald's tables do not show any material increase until we reach the age of forty-five years, and that by far the most marked increase is after the age of sixty. It may seem a paradox, but it is nevertheless true that a high mortality from cancer is very creditable to the sanitary conditions of the community in which it occurs. Nothing but good surgery can in any degree restrain its increase, for all the successes of the sanitarian tend in the opposite direction.

A CATECHISM OF SURGERY; WITH CASES FOR DIAGNOSIS.

No. XLV.—*Festination, Westphal's Symptom and Clonus.*

1. What is "festination" ?
2. In what disease does it occur ?
3. What is Westphal's symptom ?
4. What is "ankle clonus" ?
5. What is the meaning of the word "clonus" ?
6. What condition allied to ankle clonus is often discovered by patients themselves, and what does it imply ?

ANSWERS.

1 and 2. "Festination" or "hurrying" is a name given to the half-running gait which is often seen in paralysis agitans. The head is thrown forwards and the body bent, and the patient begins to run under the necessity of regaining his centre of gravity.

3. "Westphal's symptom" is what is usually known as loss of patellar reflex. It was first observed by Westphal.

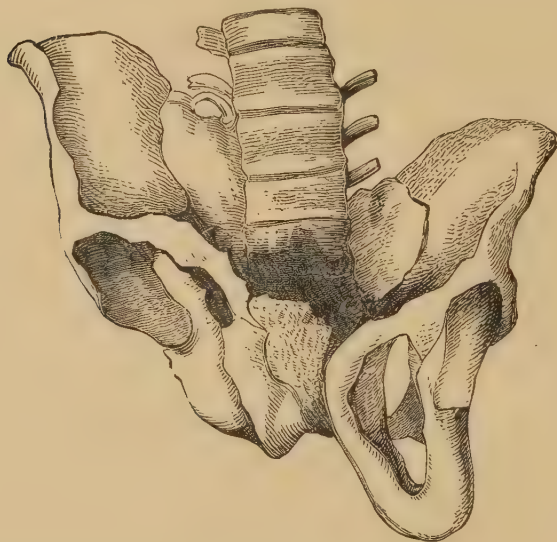
4. "Foot clonus," "ankle clonus," "reflex clonus," "foot trepidation," and "turning-lathe movement," are names given to the rapidly repeated movements of the foot which, under certain conditions, may be induced by forcibly extending the tendo achillis. It is observed in various forms of paraplegia, and in association with increase of patellar reflex. Hughlings Jackson has observed it as a temporary condition immediately after an epileptic fit.

5. Recurring and tumultuous movements.

6. Patients often observe that if whilst sitting the foot is pressed firmly in the tip-toe position, the calf at once passes

into clonic spasm, with very rapid lathe-turner's movement. The symptom is usually of no great consequence, but may imply spinal defect.

No. XLVI.—*Specimen for recognition.*



1. What is the condition shown in this wood-cut?
2. What has been the nature of the accident which produced the displacement?
3. What should have been the treatment of the case?
4. Are similar conditions often met with in practice?

ANSWERS.

1. The wood-cut shows displacement of the whole of the os innominatum upwards. The iliac crest is at least an inch and a half higher on the right than the left side, and the same with the tuber ischii. The line of junction of the ilium with the sacrum is obliterated by the deposit of new bone.

2. The specimen is in the Musée Dupuytren at Paris. No history is forthcoming; but presumably the pelvis had been crushed with great violence.

3. If practicable, the displacement should of course have been reduced by drawing the limb downwards and fixing it by a long splint, pelvic bandage, &c.

4. Displacement of an entire os innominatum is a very rare accident. I have, however, treated more than one such in the London Hospital.

No. XLVII.—*A Case for Diagnosis and Treatment.*

A gentleman of 37 has for four years been passing at an average four quarts of limpid urine per diem. It has a specific gravity of 1005, or sometimes only 1002, and looks like spring water. It always contains albumen. He retains fair health, and has no dropsy. He has, however, acid dyspepsia, and is liable to most violent headaches with vomiting.

1. What name should be given to his chief symptom?
2. In what directions would you wish to make further inquiries?
3. How are the headaches to be explained?
4. What is the prognosis of the case, and what are its special dangers?
5. What treatment would you adopt?

ANSWERS.

1. The case is one of polyuria or diabetes insipidus. It is complicated by the presence of albumen, and probably by deficiency of urea.

2. A careful estimate of the quantity of urea excreted per diem should be made, for on this chiefly the prognosis will depend.

3. His headaches and sickness may possibly be of uræmic causation.

4. The prognosis is grave, notwithstanding the patient's appearance of good health, for a sudden development of uræmic symptoms may occur at any time. The patient is in danger of disease of the arterial coats and hypertrophy of heart. He may have brain symptoms—First, from rupture of a diseased artery. Secondly, from the direct influence of urea (uræmic coma).

5. The treatment should be by careful attention to the bowels and skin, an extremely quiet mode of life, avoidance of causes of catarrh, and a non-stimulating regimen (milk and vegetables).

No. XLVIII.—*The two forms of Hydrocephalus.*

1. Distinguish between external and internal hydrocephalus.

2. Which is the more common?

3. To whom are we chiefly indebted for knowledge on this point, and when did he live?

ANSWERS.

1. In external hydrocephalus the fluid is collected between the dura mater and the brain, in the arachnoid cavity.

In internal hydrocephalus the fluid distends the ventricles, chiefly the lateral ones, and the brain mass is spread out in a more or less thin layer over it.

2. Internal hydrocephalus is far more common than external. Many mistakes of observation have occurred in consequence of the thinness of the layer of brain matter covering the fluid. It is even doubtful whether any large external collections of fluid are ever met with excepting as congenital conditions.

3. Dr. Alexander Monro, in 1797, first proved that the ventricles communicated, and cleared our views on the point referred to.

No. XLIX.—*Cerebral Hemi-anæsthesia.*

1. What is meant by the term "cerebral hemi-anæsthesia"?

2. Where is the brain-centre for sensation placed?

3. What other symptoms attend the hemi-anæsthesia?

ANSWER.

Those who have investigated the localization of cerebral functions tell us that if a certain belt of fibres passing from the posterior part of the crus cerebri external to the optic thalamus be destroyed, loss of sensation on the opposite side will result. To this Dr. Ferrier adds that it is due to

the fact that the fibres in question are proceeding to the hippocampal region, and this latter he regards as the cerebral centre for sensation. In addition to the cutaneous anæsthesia induced by disease of this region there is also, adds Dr. Ferrier, damage to the special senses. Vision in the eye opposite to the lesion and on the same side as the anæsthesia is "seriously impaired, if not quite abolished." There is remarkable contraction of the field of vision, and difficulty in discrimination of colour. The defect of sight is confined to one side, and is a purely unilateral amblyopia or amaurosis. The other special senses, not excepting smell, are also diminished. This group of symptoms constitutes what is known as "cerebral hemi-anæsthesia."

No. L.—*A Case for Diagnosis.*

A Welsh farmer, of 38, apparently strong and well, has had three or four attacks of inflammation of his right eye, and one in the left. The attacks have been almost painless, but have left minute patches of haze at a little distance from the corneal edge. His attacks have always been produced, as he thinks, by exposure to cold, and the worst came from having had his hair cut. He has lost four brothers and sisters from consumption. In early life he was very liable to quinsy, but has had none since he let his beard grow. He is not liable to cold extremities, nor to chilblains. With the attacks of inflammation of the eye he has more than once had discharge from one or other ear, with deafness and great sense of fulness but without pain.

1. What is the nature of the ophthalmia?
2. With what forms of diathetic tendency are such attacks usually associated?
3. In what do the attacks differ from typical catarrh?
4. What should be the measures of treatment?
5. To what named malady is the case allied?

ANSWERS.

The disease would appear to be of a somewhat catarrhal character—that is, a consequence of exposure to cold; but it differs from typical catarrh (with coryza), in that the cold has

always been applied near to the part affected, and that the resulting inflammation has never been symmetrical. In its transitory character it has conformed to the law which regulates all catarrhal inflammations. There is some fear, should the disease be neglected, that it may lapse into what is known as Recurring Cyclitis. No doubt the history of family tuberculosis is important, for it is one which is frequently present in cases of the last-named disease.

The indications for treatment are obvious. To let the hair grow freely both on scalp and face; to carefully avoid all undue exposure to cold; to take tonics and cod liver oil, and to live liberally. For the attacks of ophthalmia and external otitis, an ointment containing two grains of yellow oxide of mercury to the ounce will probably be best.

It is desirable to inquire carefully whether there be any gouty predisposition. Relapsing cyclitis is usually either gouty or scrofulous, or both.

No. LI.—*Cowper's Glands and Bartolini's Glands.*

1. Is the name "Cowper's Glands" correctly applied to the glands of Bartolini (or Duverney)?
2. Of what are Bartolini's glands the analogues (in the male)?
3. Do the lower animals possess these glands?
4. What is the probable use of their secretion?
5. Is their presence invariable?
6. What becomes of them in age?
7. Describe their exact anatomical position.

ANSWERS.

1. Scarcely. Cowper in 1697 described in the male (already known to Columbus) the glands which bear his name: Duverney in the middle of the eighteenth century discovered his vaginal glands in the cow; and Bartolini, following up information given by Duverney, found them in the human female soon afterwards.

2. They are unquestionably the analogues in the female of "Cowper's glands" in the male.

3. It is believed that all animals in which the females have these vaginal glands, the males possess the glands of Cowper.

4. They secrete freely a mucus which lubricates the parts and dilutes the semen, and they probably exercise in coition a similar function to that of the salivary glands in eating.

5. They are not invariably present, and sometimes one only can be found. The same is true of Cowper's glands.

6. In advanced age they diminish in size and may wholly disappear.

7. The following is Tiedemann's description of them:—

"These glands are situated at the entrance of the vagina, beneath the skin covering the inferior part of the labia. They are covered by the superficial fascia of the perineum, and by the fibres of the constrictor vaginae. They here occupy a space included between the lower end of the vagina and the ascending ramus of the ischium, and the ramus of the clitoris and erector clitoridis muscle. The glands lie in very loose cellular tissue, the removal of which requires very careful dissection in order not to cut away the glands with it. They are bean-shaped. Their long diameter varies from 5 to 10 lines: their transverse diameter from $2\frac{1}{2}$ to $4\frac{1}{4}$, and their thickness from $2\frac{1}{4}$ to 3 lines" (p. 13).

No. LII.—*Diseases of Bartolini's Glands.*

1. Mention the diseases to which Bartolini's glands are liable.

2. To what condition is the term "vaginal ranula" applicable?

3. Under what conditions of life is vaginal ranula most frequently met with?

4. What is the treatment required?

5. Are Cowper's glands in the male, and their analogues in the female, of importance in reference to gonorrhœa and gleet?

ANSWERS.

1. The duct may be blocked or obliterated and a cyst may form from accumulation of secretion behind. Acute inflam-

mation may occur, and an abscess with fetid contents may result. The gland may be affected in gonorrhœa and secrete pus.

2. The term "vaginal ranula" might very suitably be applied to cases in which, without inflammation, the glands become dilated in large cysts containing glairy mucus.

3. Their subjects are almost invariably young newly-married women.

4. It is not usually necessary to excise the cyst, but sufficient to lay it freely open and apply lunar caustic to the interior.

5. Cowper's glands no doubt sometimes suffer in gonorrhœa, and their analogues in women probably usually do so. They are inaccessible to injections, and chronic disease is therefore very likely to persist in them. It is not improbable that Bartolini's glands may often be the source of contagious secretions in women who believe themselves quite free from vaginal discharge.

No. LIII.—*On Symptoms in cases of Deafness.*

1. If a patient cannot hear a watch when pressed on the forehead or held between the teeth, what does the inability imply?

2. Conversely, if the watch held near the ear is not heard, but is so as soon as the forehead is touched, what is the cause of the deafness?

3. How would you ascertain whether the Eustachian tube is free?

4. What condition observed in the external ear implies blocking of the tube?

ANSWERS.

1. It implies disease in the internal ear, or of the nerve trunks or centres, and it excludes obstructions of the external meatus or Eustachian tube.

2. Obstruction of the meatus usually renders the sound-wave transmitted by the bones more easily perceptible, as may easily be proved by pressing down the tragus. It shuts the door and prevents the sound from escaping. Thus if a patient

cannot hear a watch held in the air a few inches from the meatus, but hears clearly directly it touches the head, the diagnosis of obstruction of the meatus is evident.

3. The patient should be made to close his nostrils, take water in his mouth, and then swallow. This will cause a distinct thud in the ear if the tube is not closed. Or he may be told to close his mouth and nose and then attempt forcible expiration. Or "Pollitzer's bag" may be used, by which the surgeon blows air into the nostril at the same moment that the patient by the act of swallowing opens the faucial orifice of the tube. The surgeon, by means of another tube from the patient's ear to his own, may himself hear the sound produced by the filling of the tympanum.

4. A much depressed membrana tympani, as ascertained by the speculum, implies a blocked Eustachian tube.

No. LIV.—*Acromegaly*.

1. What is the condition to which the name "Acromegaly" has been applied?

2. With what internal lesion is it often associated, and what is the probable nature of the connection?

3. Are other parts overgrown as well as the bones?

4. Is it attended by failure of general health?

5. What is its clinical course?

6. Distinguish between acromegaly and osteitis deformans.

[See ARCHIVES i. 141.]

ANSWERS.

1. The pathological marvel to which this name has been given (by Dr. Pierre Marie, who first observed it) is attended by enlargement of the extremities, head and face, hands and feet. These grow in all dimensions until they are quite disproportionate to the rest of the body.

2. The subject of acromegaly becomes unable to wear the hats, gloves, and boots which formerly fitted him. The hands are conspicuously big, the fingers being very broad. The face looks large and coarse, especially its lower part.

The pituitary body has been repeatedly found much en-

larged; but it is more probable that this enlargement is a part of the disease than its cause.

3. Yes; the skin and its appendages grow as well. The lips become thick, and the skin of the scalp may be thrown into thick folds.

4. It is not at first attended by definite failure of health, but by degrees cachexia usually supervenes.

5. Dr. Marie believes that the ultimate prognosis is bad; but his fears are possibly a little exaggerated.

6. Osteitis deformans is a disease of the osseous system generally, and not of the extremities. There is loss of stature. There is no enlargement of the soft structures. It is a form of chronic inflammation, whilst acromegaly is a lesion of growth.

No. LV.—*Spina Bifida.*

1. What is a spina bifida?
2. What different forms of spina bifida are met with?
3. In what part of the back is it most frequent?
4. Mention some of the complications of spina bifida.
5. If the subject of spina bifida attain adult life, what inconveniences may be present?
6. What methods of treatment may be adopted?

ANSWERS.

1. A congenital protrusion in connection with the spinal cord.

2. Protrusion of membranes only; of membranes with the cord or nerves; of the membranes and cord with dilation of central canal. These are named meningocele, meningo-myelocele, and syringo-myelocele respectively. The second form is by far the most common, and the last is exceedingly rare.

3. The lumbo-sacral region is the part usually affected.

4. When the nerves are involved there is often talipes or some form of paraplegia. Hydrocephalus is not uncommon.

5. If the patient survives, he may suffer from permanent incontinence of urine and fæces, and possibly some weakness of the legs. Some form of talipes may be present.

6. Injection of solutions of iodine is the only suitable treatment if interference is decided upon, but it may be questioned whether it is not better to avoid it. Precisely the cases suited for operation are those which may do well without. If the tumour be covered with healthy skin and plenty of fat, survival may be expected.

No. LVI.—*Diagnosis of dislocation at shoulder.*



1. Describe the conditions presented in this wood-cut.
2. What is the diagnosis ?
3. What is the usual position of the bone in dislocation into the axilla ?
4. How would you distinguish between a sub-coracoid and a sub-glenoid dislocation ?
5. Among the differential symptoms mentioned, which is the principal ?
6. Which form is indicated by the wood-cut ?

ANSWERS.

1. The rotundity of the shoulder is lost. Instead of the usual roundness there is some appearance of hollow at a little distance under the tip of the acromion. The acromion projects, and it with the clavicle is pushed upwards. The elbow slants away from the side, and the upper arm looks as if it were longer than on the other side.

2. It is clearly a dislocation into the axilla.

3. The bone may be either under the glenoid fossa or on its inner side under the coracoid process. The former is very common and the latter exceedingly rare.

4. In sub-glenoid the arm is of necessity considerably lengthened—an inch and a half. The hollow under the acromion is well marked, and most conspicuous at a little distance below that part. The fulness under the clavicle is much less than in sub-coracoid.

5. By far the most important symptom is the increased lengthening in sub-glenoid. In sub-coracoid there is little or no increase in length.

6. In so far as this wood-cut goes, all the conditions displayed indicate a sub-glenoid displacement.

No. LVII.—*Case for Diagnosis.*

An elderly man has a large ulcer which has destroyed half his face and is still spreading. It has been present twenty years or more, and has not injured his health.

1. What is the nature of the disease, and with what may it be confounded?

2. On what is your diagnosis based?

ANSWERS.

1. Such an ulcer can only be a *rodent cancer*. It might be confounded with lupus or with syphilis.

2. The long duration, slow spreading, and good health of the patient taken together, make it certain that it is not syphilis. The depth of the ulceration excludes lupus, which is a disease of the skin, and never destroys the bones of the face.

The age of the patient is also against lupus, which usually, though not invariably, begins in the young, and is cured as age advances.

No. LVIII.—*Contracted fingers, &c.*



1. Describe the conditions shown in the above wood-cut.
2. What is the disease named which is here illustrated?
3. Mention its supposed causes?
4. In which sex is it more common?
5. What is its treatment?
6. Does it ever occur in the feet?
7. Is it ever met with in the young?
8. When did Dupuytren live?

ANSWERS.

1. In each hand there is puckering in the structures of the palm, especially near to the ulnar side. The little finger is strongly flexed.

2. Dupuytren's contraction of palmar fascia.

3. The tendency to it is hereditary in certain families. There is often a history of gout. Its exciting cause is the use

of tools or of anything which presses upon the structures of the palm.

4. It occurs almost exclusively in men, but has been seen exceptionally in women.

5. Since it depends upon contraction of bands of fascia, the treatment consists in the subcutaneous division of those bands. The muscles are not implicated and do not need division.

6. It is very rare in the feet, and seldom advances to any high degree.

7. It never commences before middle life, and is usually distinctly senile.

8. Baron Dupuytren was born in 1777, and died in 1835.

No. LIX.—*The proper duration of Lactation.*

1. What ought to be the duration of lactation when mother and child are healthy?

2. Does any harm accrue to mother or child, or both, from prolonged lactation?

3. Give facts from the lower animals.

4. How long is it possible to prolong lactation?

5. Mention some indications for the termination of lactation.

6. Is prolonged lactation a legitimate and suitable precaution against too rapid child-bearing?

7. Does lactation always prevent conception.

ANSWERS.

1 & 2. It is probable that the answer to these questions depends almost entirely upon the feeding and health of the mother. A healthy lactifer, well fed, may continue to supply good milk for indefinite periods. Under these conditions, no harm will accrue either to mother or child.

3. Some of the lower animals (sheep for example) suckle their young till more than half-grown. Cows, if well fed, bear prolonged milking without injury. In most of the lower animals the lactation period is, in ratio with growth of the young and duration of life, much longer than that now usually allowed to women.

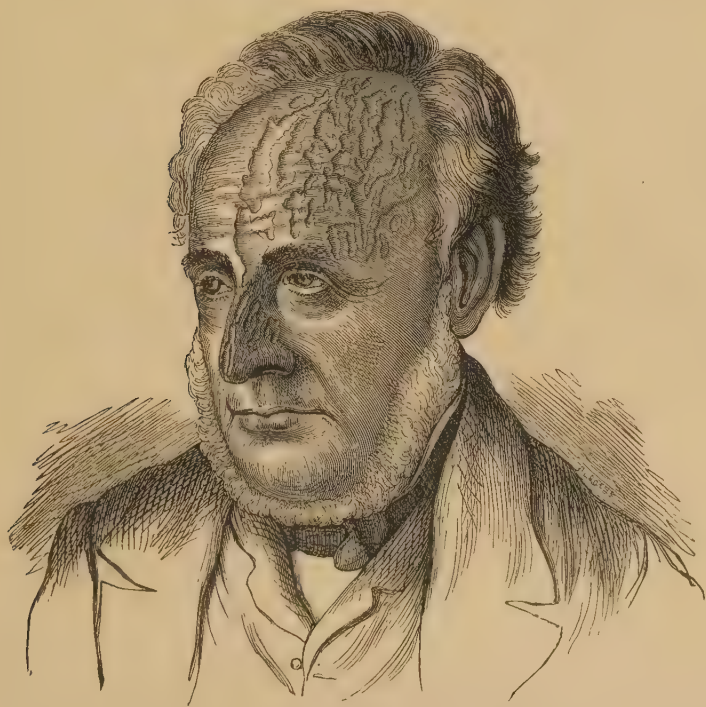
4. The duration of lactation cannot be prolonged indefinitely unless the ovaries have been removed; but under proper management it might probably easily be double what is now usual. Mahomet's laws required that a mother should suckle for two years (and abstain from intercourse).

5. Lactation should end if, in spite of liberal feeding, &c., the mother's health suffers; if menstruation has been resumed or pregnancy has occurred; or lastly, if the milk is poor and the infant suffers.

6. Yes; if the mother's surroundings be favourable and her milk good.

7. No. As is well known, it does not always prevent menstruation. When menstruation occurs, lactation as a rule should be stopped, and the occurrence of conception becomes possible.

No. LX.—*Case for Diagnosis.*



1. The conditions intended to be shown in the above wood-

cut are a series of scars arranged in a somewhat linear manner on the forehead, temple, and side of nose. What disease do such scars denote?

2. By what nerves has the disease been located?
3. What is probably the essential nature of herpes?
4. Does herpes frontalis differ in any way from common zoster?
5. What other lesions than those on the skin attend herpes?

ANSWERS.

1. The scars arranged in the manner shown denote conclusively the occurrence of a severe attack of herpes zoster frontalis ("herpes ophthalmicus"). No other disease could produce scars so definitely unilateral.

2. It would appear that the whole division of the fifth nerve was implicated. The scars occur even on the tip of the nose, showing that the oculo-nasal twig did not escape.

3. A neuritis attended by an eruption; the eruption being due to implication of the end organs of the nerves.

4. No, they are the same malady, due to the same causes, and differing only as to the special nerve affected.

5. Herpes is usually restricted to the sensory nerves; but the organs of special sense may suffer. Now and then muscles are implicated, and occasionally possibly subcutaneous tissues, fascia, &c. In herpes ophthalmicus the eyeball often suffers as a whole.

PLATE XXVI.

RAPIDLY GROWING SCIRRHUS OF THE BREAST.



THE drawing shows a large, well-circumscribed mass of scirrhus in the middle of a breast loaded with fat. The growth was unusually soft and vascular, and had developed very rapidly. It shows large areas of yellow fatty degeneration.

I have lost the address of the patient (who was a woman of middle age), and cannot speak positively as to recurrence; but I believe that she was living several years after the operation, and free from symptoms. My experience has been that some of these cases of most rapidly growing tumours of the breast have given the best results as regards non-recurrence.

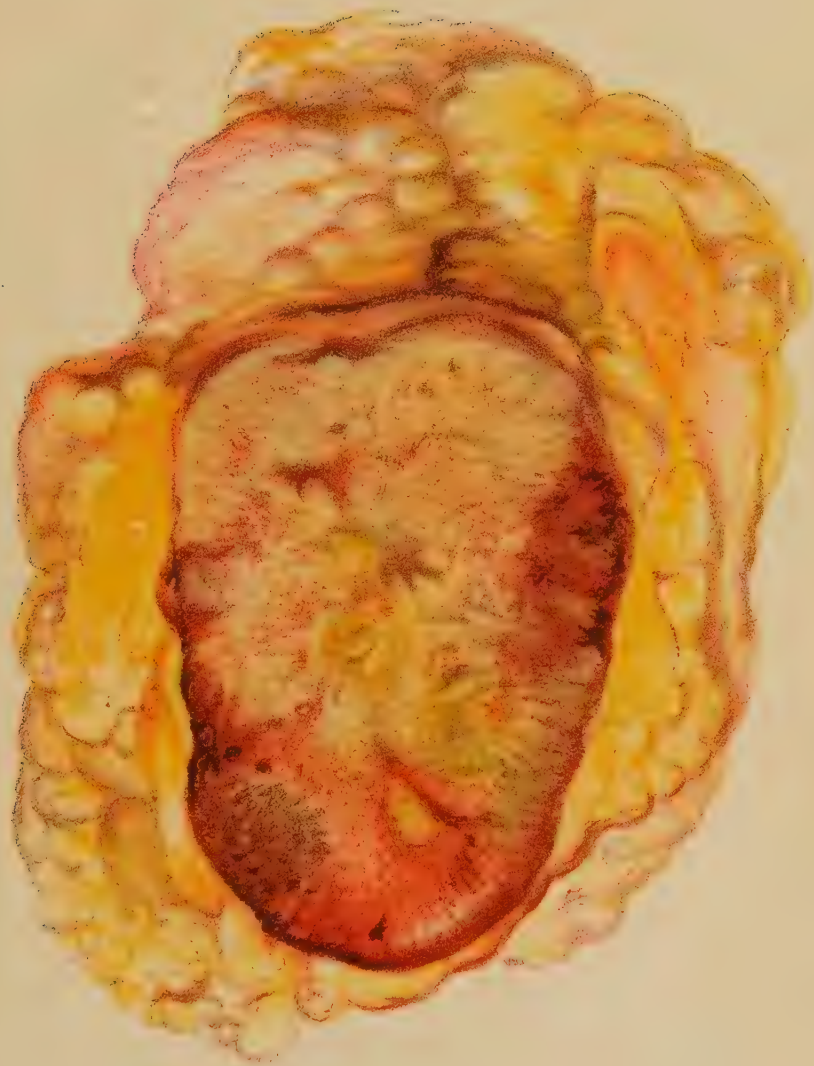


PLATE XXVII.

MYELOID AND CYSTIC TUMOUR OF THE FEMUR.

THIS portrait represents the section of a tumour which had developed slowly in the condyles and lower part of shaft of the femur. The patient was a man of about twenty-eight, and the tumour had been growing several years. I amputated through the thigh (in the London Hospital), and he made a good recovery. He is, I believe, still living (ten years after the operation).

The portrait shows the condyles and shaft expanded by a well-defined and partially encapsuled growth. The section shows, in the solid parts, the various tints of brown and yellow which characterize myeloid sarcoma. There are numerous cysts of considerable size, and many nodules of ossification. The tumour bulges into the knee-joint, so as to appear to occupy it. It is everywhere surrounded by a thin capsule of bone.

As illustrating the law under which similar growths occur under similar conditions, I may mention that I possess another drawing, which can scarcely be distinguished from this.

See 'Illustrations of Clinical Surgery,' plate LVIII.

